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The Association also publishes *The Annals of the Association of American Geographers,* which contains professional papers, presidential addresses, and abstracts of papers delivered at annual meetings.

WHAT ARE GEOGRAPHERS DOING IN BUSINESS?

William Applebaum

The geographer's interest in business and the businessman's interest in geography are developing to their mutual benefit, even though perhaps more slowly than desired. Additional geographers are finding employment in business either full-time or on special projects. An analysis of the abstracts published in the *Annals* of June and September 1954, shows that six of the papers given at the 1954 meeting of the A.A.G. dealt with work of geographers in business. This is an historic bench mark whose significance gains perspective when we recall that the bibliography compiled by the Committee on Careers in Geography contains only four titles on this subject.[1]

All of the papers given last year on the geographer in business are uniform in their emphasis on applied geography. In fact, there is an implication in all of them that applied geography is business geography. The emphasis on applied geography is good in so far as it conveys the desire and intent to employ geography as a tool in the solution of business problems. But we must remember that geography can also be applied in a number of other ways, including the unprofitable business of war.

Let us not overdo the concept of application. That is neither good for business nor for the geographer. Without a theory, without a broad general base of orientation, without a distillation of concepts and principles the geographer's place in business may confine him to the chores of a hewer of wood and drawer of water. A little bit of theory now and then is even relished by a businessman.

There is another point which needs clarification. What is business? It is important that we agree more or less on this. Activities such as manufacturing automobiles and cheese, milling flour and freezing peas, hauling coal and transporting passengers, yes, and even good farming, can all qualify as legitimate business. It takes production of agricultural goods, fishing, extraction of minerals, manufacturing, transportation and a host of other services, selling and consumption to keep business going. A large corporation may be directly involved in practically all of these activities.

If all this makes sense, we can rejoice that as geographers in business we may have an opportunity to draw upon our knowledge of all fields of geography.

In "The Geographer in Business and His Requisite Training"[2] an attempt was made, largely on the basis of personal experience, to indicate where the geographer's greatest opportunities to serve business lie. The geographer, it was pointed out, can contribute toward ascertaining *where* goods and services can be sold at a profit, by (1) analyzing markets and their sales potentials, (2) evaluating and selecting locations for business uses, (3) delineating trading areas and sales territories, and (4) presenting market data in cartographic form. These endeavors were designated as "Marketing Geography." In a more recent paper, with the benefit of suggestions from colleagues, these views were restated and amplified.[3]

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[1] "A Selected Bibliography on Careers in Geography," *The Professional Geographer*, May 1954.

[2] *The Professional Geographer*, April 1947.

[3] "Marketing Geography" in *American Geography: Inventory & Prospect*, Syracuse University Press, 1954.

Regarding the geographer's training for employment in business, it was suggested that at least some professors of geography should (1) establish sustained contacts with business executives to ascertain what specific business problems geographers might investigate and (2) should maintain close liaison with their colleagues in the school of business administration, particularly with the teachers of marketing and market research, and endeavor to undertake joint research projects.

As for the student who intends to work as a professional geographer in business, it was suggested that in addition to his training in geography, he should obtain (1) a working knowledge of economics, marketing and market research, statistics and accounting, and (2) a first-hand experience in business through employment during his vacations in either the market research department or the sales department of a large business firm. Graduate geography students who are interested in working for business should choose for their dissertations specific studies in marketing geography, preferably with the blessing and financial support of an interested business firm.

"Marketing geography" describes the work of the geographer in business better than any other title and fits neatly into the broad field of market research and analysis with which business executives are already familiar. This gives the geographer a chance to ride with the tide. Hence we will be wise to market our talents to business as marketing geographers, and stick to this brand name.

Today we are adding to the still-infant literature of our field. This is all to the good and should convince us that there is more pay-dirt in our midst. Perhaps we are ready to start a little mining operation. Certainly we can step up our efforts to improve our professional skills and prepare to bring more forcefully to the attention of business the service that geographers can perform.

It seems to me that the time has come to organize an intensive survey of what geographers are doing in business. Such a survey should be sponsored by the Association of American Geographers. It should undertake to inventory the experience of American geographers in business.

The survey should find out which geographers have worked professionally for business; what specific work each has done, when, and for whom; what reports were produced and how these were used by business; what new concepts, methods and principles were developed in this work; areas of professional strength and weakness encountered in the work; and how each assignment came about. The survey should also undertake to ascertain the adequacy of the remuneration; satisfaction of work in business compared with work in teaching or government; and degree of interest in doing further work for business full-time, part-time, or occasionally.

Since most geographers have not had professional experience in business, the survey should find out from them whether they have an interest in such work; whether they have ever tried to find such work, and if so when, where, and why did it not materialize; what types of projects would interest them in business; and would they want full-time, part-time, or occasional employment in business, and what compensation would they expect.

The survey should also inventory university geography departments to ascertain what efforts these departments have made to undertake research projects for business and what results they have achieved.

The items enumerated for inventory are presented only as a suggested outline. The final questionnaire will undoubtedly be a more refined and integrated product of a number of minds. This is not an expensive survey, and where there is a will the funds can be found for printing and mailing; all other work would be a labor of love.

Before we undertake such a survey we should ask ourselves once more, jus to make sure, "What do we want to achieve?" To this let us reply: "We wan plenty of professionally interesting, socially useful, and well-paying jobs fo geographers in business. We believe that we can achieve our objective sooner an more successfully if we organize for it. Taking an inventory of what geographer are doing in business will be another step forward."

The results of such a survey will give us a statement of our assets an liabilities. They will guide us in taking our next step in an organized course o action. The survey will activate many geographers to serious thought on th subject. Some good suggestions will come, perhaps from unexpected sources The fresh interest aroused will generate energy which can be channeled int studies and papers.

It is not enough that we should discuss our work among ourselves. We mus talk about it also in the market place. Whether or not we like advertising advertising has power: *it sells*. But we must make sure that the service whic we propose to sell is of high quality and that we are forever striving towar perfection.

We should look forward to the day—and not so far away—when our qualifi cations as marketing geographers will have so improved that the Association o American Geographers will undertake to publicize to the business world wha geographers can do for business. And we can hope to see the day when busines will be eager to engage every marketing geographer who wants to work in business

We must look ahead, think ahead, plan ahead and act with a long-range view No great thing has ever been achieved without a little dreaming, lots of work an considerable self-confidence.

SOME CONFUSING ASPECTS OF COMMON MEASUREMENTS

William L. Garrison

Judging from recent publications, computing percentages would seem to be the technique of modern comparative urban geography. Descriptive measures o employment statistics would seem to be most popular, but I have also seen measures of rates of change and ratios. I like to think that I am a reasonably intelligent person, but I cannot understand these measurements.

As an example of my confusion, in one recent study of employment in cities I found in the appendix: MANUFACTURING, average 27.27 percent, standard deviation 16.04. I can understand how these were computed, this isn't my problem. It's when I try to investigate how these measures describe the distribution that I have difficulty. All I know about the standard deviation, as far as description is concerned, is that I can look in a table and find areas related to SD distances. If I follow this procedure I make the discovery that about five percent of the cities have less than 0 percent of their employed labor force employed in manufacturing. This is extremely interesting, but extremely confusing. Am I doing the wrong thing? Perhaps we should use the numbers the author gives us to compare distributions. Here is another set of data from the same study:

A		B	
RETAIL TRADE		PERSONAL SERVICE	
Average	19.24	Average	6.20
Standard deviation	3.63	Standard deviation	2.07

Now 3.63 is clearly greater than 2.07 (A is more dispersed than B). However, when I compare (19.24 + 3.63) with 19.24 I find that one SD interval is 19 percent more than 19.24 and when I compare (6.20 + 2.07) with 6.20 I find that one SD

interval is 33 percent more than 6.20. Now 33 is clearly greater than 19 (B is more dispersed than A). I am confused again.

This is only the beginning. I am confused when I look at measures of change, economic base studies and, to a lesser degree, at quartiles. Not to mention my wondering what we learn by counting heads classified in census categories without testing whether the classification applied in the same way in each city. Further, I wonder why we compute percentages when what we seem to be trying to do can be done in a better way.[1]

It isn't that I am lazy; I have looked around for an explanation of why such numbers seem so difficult to understand. The following quotation is what some mathematicians have to say.

> "The student . . . will find that most problems of measurement are scientifically alive and unsolved. One of the greatest difficulties is that measurement appears deceptively simple. The intuition cannot be depended upon in this domain, for our intuition tells us: 'All there is to it is to locate two states A *and* B, assign A⟶0 and B⟶100, and divide the interval AB into 100 equal parts. One of these parts is then a unit of measure.' This procedure has proved false so often in the behavorial sciences that the basic difficulties should be understood at the beginning of one's study of the subject. Another presentation of the same fallacy appears often in practical economics, which gets from accounting a plethora of statistics which invite us to plot curves relating 'quantities' in economics whose units appear obvious as dollars, or tons, or carloads, or bushels. From these relations one attempts to draw conclusions. It immediately becomes obvious that there is something wrong, for different economists seldom agree in their conclusions. Despite the evident contradictions there is stubborn persistence of this type of analysis. The reason for this is that the quantitative intuition is so strong in 'the mind of man' that a few million contradictions are disregarded. It can be stated with assurance that anyone who expects to do sound scientific work in these domains must severely discipline his treacherous quantitative intuition: and the mathematical way of doing this is perhaps the best one."[2]

Of course, what these mathematicians have to say does not apply to us because they do not mention geography.

---

[1] Donald J. Bogue and Dorothy L. Harris. *Comparative Population and Urban Research via Multiple Regression and Covariance Analysis.* Oxford, Ohio. Scripps Foundation for Research in Population Problems. 1954.

[2] Department of Mathematics, University of Kansas, *Universal Mathematics,* Part I, Functions and Limits. Lawrence, Kansas. 1954. pp. 120–121.

A PROFESSIONALIZED GEOGRAPHY CURRICULUM

J. Granville Jensen

The professionalized undergraduate geography curriculum developed during the past ten years at Oregon State College, where the Department of Natural Resources specializes in the training of resource geographers, is definitely directed toward preparation for employment in fields where the methods, knowledge, and philosophy of geography are fundamental. Consequently, the curriculum differs from those in most geography departments and from that proposed by Doerr in the September 1955 issue of *The Professional Geographer*, principally in requiring more specific courses in basic sciences and techniques. However, the broadening aspects of general education are not neglected, for ample electives allow opportunity for inclusion of liberal arts courses. Each student is considered as an individual within the framework of the curriculum as authorized by the college administration; regular conferences serve to guide the selection of electives to contribute toward reaching suitable and desired goals.

At the undergraduate level emphasis is placed on acquisition of a background in fundamental sciences, on methods and techniques of library and field work, on development of ability to organize and synthesize information into written reports, and on study of world resources as the basis for man's economies. At the graduate level emphasis is placed on detailed study of United States resources, on development of analytical and prediction ability, and on practice is written and oral presentation.

The first two years are devoted to background courses in basic sciences and the language arts. A one year sequence of three terms in chemistry provides appreciation and comprehension of the concepts and processes of industrial chemistry, essential to the resource geographer. In mathematics, algrebra is required of resource geography majors unless they pass the college entrance examination in that subject. The one year sequence in biological science is usually botany, which contributes directly to the geographer's needs as does the two terms in technical study of soils. In language arts the year sequences in composition and in literature are supplemented by a term of journalism to provide additional practice in writing. The year sequence in cartography is in the sophomore year so that the skills may be used in the junior and senior years. The year sequence in Introductory Geography (World Regions, Economic, and Political) provides an orientation to the entire field of geography as well as background in world understandings and occupance patterns.

Upper division studies begin with the junior year sequence in *Physical Geography*, an extensively expanded study of the elements as presented by the Finch and Trewartha text. Laboratory exercises cover statistical and visual methods of analysis, systematic classification, and evaluation of the elements of environment as resources. The five credit class in *Techniques and Field Research* provides practical field use and study of many methods and techniques useful to the geographer in area, resource, industrial, and urban analysis. These include field mapping, use of aerial photographs, traverses, checklists, interviews, sampling, and detailed consideration of sources of information. *Geography of the Pacific Northwest*, a required course, provides a systematic regional study of our own area. The year sequence in *World Resources* is an advanced study of resources as the foundation of man's economies. The first term is devoted to biotic resources of forest, range, fisheries and wildlife including recreational aspects; the second term is agricultural geography; the third term is devoted to mineral geography including water resources. The *Principles and Policy* (conservation) course in the senior year provides opportunity to summarize and

correlate concepts and ideas of resource use and problems gained during the college years. All seniors take part in the *weekly seminar* with the graduate students. The seminar develops professional attitudes through organized discussions of the philosophy of geography, development of the field, applications and expanding employment potentials, major departments, and leaders of our profession. Each graduate student makes one major presentation of a professional paper. Frequently, business or government administrators or scientists are invited to serve as guest leaders of the seminar.

During the senior year every major writes a *senior thesis* which is directed as a two-term class. The first term is devoted to preliminary research in the field and library, and to organizational writing critique; the second term to the actual writing of the thesis. The bound theses are useful aids in procuring employment. We are the only department on this campus requiring a senior thesis. It is a unique feature of our program providing a realistic opportunity for practice and demonstration of ability in research, organization, analysis, synthesis, and writing—all abilities which we feel are essential for employment of geographers in applied fields.

Contacts with specialized scientists and additional subject matter are provided through a group of supporting courses in wildlife management, range management, tree identification, and rocks and minerals. Each course deals with ecological aspects and provides specific knowledge for appreciation by the geographer of these fundamental fields.

Sixty–one elective credit hours remain with which the student can develop an emphasis within the field of resource geography, master a foreign language, and broaden and liberalize his training. Students are encouraged to use their electives to develop subject matter concentration in such aspects as planning, marketing, industrial or commodity analysis, or in the resources of one of the areas in which we offer opportunity for further study, the Pacific Basin, Latin America or the Soviet Union, and to include the language of the area.

Our experience suggests that there are many areas of opportunity for students graduating from our four–year curriculum. The graduate in natural resources is as much a resource geographer as the bachelor of science graduate in chemistry is a chemist. Graduates with the bachelor's degree have taken positions dealing with planning, marketing, area analysis, in Chamber of Commerce work, and in various industries. Women commonly include secretarial studies as electives and several graduates are serving as secretaries and research assistants in industry and government agencies concerned with resources. A number of our graduates are making successful careers as intelligence officers in military and government agencies.

Each graduate student is given an oral qualifying examination by the departmental faculty to determine his program. We look for capacity to do geographic thinking and appraise the candidate's personality for professional work in the field. In the subject matter of the oral we examine for knowledge of the facts and principles of the topical studies dealing with the environment—climate, landforms, soils, biotic elements, and for knowledge of the world. Students accepted for graduate work usually remove any deficiencies by special studies under guidance or by auditing an undergraduate class and reexamination.

The graduate major is developed around a core of required courses consisting of a one year sequence in United States Resources, 9 credits, open only to graduate students; Techniques of Field Research, 3 credits; seminar, 3 credits; and the thesis, 6–9 credits. Additional credits in natural resources courses to make a total of 30 are then selected to meet the needs of the individual student.

All candidates for a masters degree must present a minor field of study equalling one–third of the program (15 credits). There are many possibilities

available on our campus, of which the most frequently selected are Agricultural Economics, International Relations, Public Administration, Marketing and Finance, and College Teaching.

The graduate program of study leading to the master of science or master of arts degree is thus more flexible than the undergraduate program, but is equally specialized in the field of resource geography. Each graduate student is considered as an individual with different background and ambitions. Our goal is that each student accepted as a candidate for a degree will become the best possible resource geographer.

UNDERGRADUATE CURRICULUM

	Term hours			Equivalent Semester
Freshman Year	F.	W.	S.	Hours
English Composition (Wr. 111,112,113)	3	3	3	6
General Chemistry (Ch. 101,102,103)	3	3	3	6
Introductory Geography (Geog. 105,106,107)	3	3	3	6
Elementary Journalism (J. 111)	–	–	3	2
Air, Military, or Naval Science (men)	1–3	1–3	1–3	2–6
Physical Education	1	1	1	2
Electives	5–3	5–3	2–0	8–4
	16	16	16	32
Sophomore Year				
Group requirement in Literature (Eng. 104,105,106)	3	3	3	6
Cartography (NR 261,262,263)	3	3	3	6
Sequence in Biological Science (usually botany)	3	3	3	6
Soils (SLs. 211,212)	3	3		4
Air, Military, or Naval Science (men)	1–3	1–3	1–3	2–6
Physical Education	1	1	1	2
Electives	2–0	2–0	5–3	6–2
	16	16	16	32
Junior Year				
Physical Geography (NR 327,328,329) (Climatology, Climates of the World, Landforms)	3	3	3	6
Tree Identification (Forestry 153)	3			2
Techniques of Field Research (NR 361)	–	–	5	3
Range Management (AH 341)	3	–	–	2
Wild Life Management (FG 310,311,312)	3	3	3	6
Geography of Pacific Northwest (Geog. 211)	–	3	–	2
Electives (including advanced military)	4	7	5	10
	16	16	16	32
Senior Year				
Natural Resources of the World (NR 421,422,423) (Biotic, Agricultural Geography, Minerals)	3	3	3	6
Rocks & Minerals (G 350)	3	–	–	2
Principles & Policy-Conservation (NR 411)	–	–	3	2
Seminar (NR 407)	1	1	1	2
Thesis (NR 403)	3	3	–	4
Electives (including advanced military)	6	9	9	16
	16	16	16	32

Summary	Credits	Equivalent Semester Hours
Natural Resources Courses	44	29
Cultural Geography	12	8
Language Arts	21	14
Basic Sciences	42	28
Physical Education	6	4
Military (men)	6	4
Electives	61	41
	192	128

ON APPLYING FOR FELLOWSHIPS TO SUPPORT RESEARCH OR STUDY ABROAD

Walter Deshler

The great majority of geographers who undertake research or study abroad must seek support in the form of grants or fellowships. The number of geography graduate students who are successful in this search for funds is not impressive. In 1952–53 and again in 1953–54 roughly 400 Fulbright Fellowships were awarded to American graduate students for study in the United Kingdom and British Colonial areas. In 1952–53 two geographers were listed among the 400 grantees; in 1953–54, one. A profession with strong claim to interests abroad should do better than this.

The actual grant application is the main and frequently the sole form of contact between applicant and those who evaluate him. It is possible, by careful planning, to design an application so that it will maximize the geographer's chances of receiving a grant. The following material has been gathered from persons concerned with the screening of applicants, and with the administration of grants, as well as from grantees themselves. All are in general agreement with respect to approaches useful in filling out the grant applications, which are designed to provide screening committees with information concerning the content of the project, and with the applicant's personal and academic qualifications for its undertaking.

Those parts of the application which cover the applicant's past performance, such as academic record, personal history form and supporting letters are of course important, but the statement of program and purpose is the principal basis on which screening authorities evaluate not only the proposed program but to a large extent the applicant himself.

The project must fit within the program under which grants are being awarded. This is less obvious than it sounds. For example, many geographers apply for student category Fulbright grants to do field research. Such applications are commonly rejected, since grants are primarily for graduate study. Library research projects are encouraged, but neither the facilities nor funds are generally available for extended field research projects and their supervision. One way of determining to a nice degree the type of project that is attractive to any one foundation or government program is to examine the specific projects previously supported by the grant dispensing agency as described in the annual reports. Both Ford and Fulbright program reports contain brief statements of the program of each grantee.

It it particularly important in applying for funds for research work to consider possible political ramifications, since research project by an economic or social geographer in a foreign country may turn out to be "not suitable at this time"

in the eyes of the government of the host country. An exploratory letter to the appropriate research council or government bureau in the area of study might bring a helpful response. If the council or agency indicates that the study would be tolerated or even encouraged, this should be stated in the application for funds.

It is desirable for the applicant to indicate that he is prepared to work without day-to-day supervision. Grant administrators, who exercise one of the numerous vetoes over applications, have little time to supervise individual grantees except in emergencies. An application which conveys an aura of helplessness arouses no protective instinct in these hardened souls. They scan it, shudder, flip on the dictaphone and commence a letter starting with the words "I regret..."

Another hurdle which plagues both administrators and student grantees, is the lack of a space in a university abroad for even the well qualified applicant. European universities are generally crowded, and arrangements to become a student must be made often a year or more in advance. In order to surmount this obstacle and at the same time to strengthen the application it may be useful for the applicant to write to a senior scholar at the university of his choice, explaining the proposed project and inviting comment upon it. If the senior scholar finds the project of interest, it may be possible to have him suggest a supervisor for the studies of the prospective grantee. In this happy event the application may now include the following sort of statement: "Professor Z.—— of the University of M—— is familiar with my project and has suggested that if I am able to undertake the study, Professor Y.—— could supervise my work." It is apparent to screening committees that Professor Z.—— will not offer encouragement unless he considers the student qualified and the project meritorious. The grant administrator's task of placement is eased when the prospective grantee is known to the people under whom he proposes to work.

These approaches to the planning and preparation of applications for funds are not short cuts. Rather, they require the prospective grantee to do some of the work usually done by screening committees and by grant administrators. However, this type of preparation is common among successful grantees, and use of one or more of these approaches may help geographers to compile a better record.

USE OF THE U.S. PUBLIC LAND SURVEY PLATS AND NOTES AS DESCRIPTIVE SOURCES

William D. Pattison

Who has exploited the Public Land Survey plats and notes for their descriptive content? The author recently completed a preliminary answer to this question, mainly composed of citations of maps, books, articles and unpublished studies discovered during about two years of collecting. The purpose of this note is to pass on to geographers certain general observations formed on the basis of this collection, with illustrations drawn from it.

The plats and notes in question are the documentary evidence of those federal surveys, begun in 1785 (and at present over ninety percent complete), by which the public lands of the United States have been subdivided prior to disposition. The surveys are well known among geographers for their creation, in the twenty-nine former public land states, of "Congressional" townships and mile-square sections. The notes are primarily records of courses run in the field, with information on distances, directions and the location of corner markers. Each plat normally represents the surveyed lines and corners of a single township (of six miles square) at a scale of two miles to the inch. Both plats and notes then, are basically boundary records, and accordingly, they have enjoyed their greatest utility at the hands of the following persons: (1) local surveyors, especially

county surveyors, for whom the records are a basic reference; (2) the surveyors of the Bureau of Land Management (successor, in 1946, to the General Land Office) that have the duty of retracing lost or obliterated lines; (3) Geological Survey field engineers, required to locate township and section lines for representation on topographic sheets; and (4) federal, state, and county courts confronted with the settlement of property disputes, especially those involving water boundaries.

Versions of the plats and notes are on deposit at county, state, and federal levels. County courthouse plats and notes are often missing, having been lost or never obtained. With one exception, plats and notes are available in each public land state, either in the office of an appropriate State official, or in an office of the Brueau of Land Management. Oklahoma's state records are in Washington. For the place of deposit in any particular state, see *Manual of Instructions for the Survey of Public Lands of the United States* (Bureau of Land Management, 1947), pp. 13–17. In Washington, duplicate records have accumulated as the surveys have progressed, and now total more than 6,500 volumes of notes and 100,000 plats. The records for Ohio, Indiana, and Illinois may be consulted at the National Archives, and the remainder at the Bureau of Land Management, Department of the Interior.

By far the greater part of these records are based upon the work of deputy surveyors, individuals who made piecemeal surveys on contract between 1796 and 1910. Since 1910, surveying has been performed by Federal Government personnel. The autograph notebooks which have survived are to be found at the state level. The same notes, transcribed by clerks and somewhat rearranged, are to be found at the same level and also at the national level. County level notes are usually copies of state copies. Plats, in triplicate, generally originated at surveyor-generals' offices, where one copy was retained, later to go to an appropriate state, and later yet, to be copied for counties. One copy was sent to Washington, and another to the local land office concerned for use in selling land. Local land office plats sent to Washington when the land offices closed, are often of special interest because of entries made on their faces at the land offices—the names of original entrymen; but otherwise they are the least satisfactory copies. Plats usually do not appear alone on a sheet of paper, but are accompanied by extracts from field notes, including remarks on "quality of soil" and, more important, the identification of corners by bearing trees.

This is the barest outline of a distribution which in reality teems with exceptions. Resurveys, belated subdivision, private claims, mineral surveys, treaty lines, special grants, and the disposition of Indian reservations have combined to produce an often bewildering array of records, as well as irregularities in the rules of custody. In general, the best guidance to state holdings may be found in the respective state volumes of *Inventory of Federal Archives in the States*, Series VIII: The Department of the Interior (Works Progress Administration, 1938 et seq.). Inquiries about federal holdings may be directed to the two depositories in Washington named above.

Before turning to the descriptive content of the records, a word should be said about the use that has been made of the plats and notes in establishing a framework for mapping. In the 19th century, the representation of the slowly advancing survey grid on state and national maps was a desirable end in itself, for both the General Land Office and private map publishers such as Asher & Adams, or Baskin, Forster & Co. In addition, the grid was made to serve as a framework for the correct placement of natural and cultural features, largely taken from sources other than the notes and plats. Once so set out, the grid could be copied for special purposes, as in Charles C. Royce's *Indian Land Cessions in the United States* (Bureau of Am. Ethnology, 1899), or W. C. Mills' *Archeological Atlas of Ohio* (Columbus, 1914). Fresh consultation of the records for establishing

a framework has been made for various projects, ranging from the War Department's pre-Civil War map of prospective railway routes west of the Mississippi *(Executive Documents*, 33d Cong., 2d Sess., Vol. XL, No. 91, Pt. II, following p. 120), to the county maps of the Michigan Land Economic Survey.

The "descriptive content" of the records is taken here to refer to information on the country traversed rather than on the lines and corners surveyed. From the inception of the surveys, the collection of a limited amount of such information has comprised a secondary purpose of work in the field. It usually has been confined to facts in support of boundary-location (such as the identity of marked trees), or to observations and judgments readily set down, without interruption of the main work in hand. Still, a search for information contained in the records has proven rewarding to many persons of varied interest. General observations based on a review of their work follow.

Although county, state and federal holdings can be reduced to no simple rule of distribution, it can be said that satisfactory research has been carried on at all three levels. County records, for example, were used exclusively by Leslie A. Kenoyer in four studies of pre-settlement vegetation in southwestern Michigan *(Papers Michigan Academy of Sciences, Arts and Letters*, Vols. 6, 19, 25, and 28). Dorothea Helmen used state records for her similar study, "Reconstruction of the Forest of an Area in Southwest Central Indiana" (Master's thesis, Botany, Indiana University, 1949). Federal records retained at the state level, in San Francisco, were used by J. O. M. Broek in compiling a map of settlement features for his *The Santa Clara Valley, California: A Study in Landscape Changes* (Utrecht, 1932). C. W. Thornthwaite once used plats deposited in Washington for a vegetation map of Oklahoma (MS, Cartographic Records Branch, National Archives). Finally, searchers are currently active at all three levels in connection with suits filed under the Indian Claims Act of 1946. Their object is to find data of assistance in determining the value of Indian lands at the time of their surrender to the United States.

Passing now to the comparative merits of the two forms in which the Survey records appear, it may be said that the plats are more tempting than the notes, because they provide ready-made graphic representations. As a basis for small-scale mapping they have occasionally sufficed, but along section lines they offer less than the traverse notes, and between section lines they seomtimes attempt too much. After the Swamp Land Acts of 1849 *et seq.*, for example, plats regularly showed swamp lands, but the accuracy of their representation has been subjected to later criticism, as in Bert E. Burns' "Artificial Drainage in Blue Earth County, Minnesota" (Ph.D. dissertation, Geography, University of Nebraska, 1954: information from Leslie Hewes). With perhaps one or two exceptions, the best research has not primarily relied upon the plats.

The notes, though a superior source, are extremely time-consuming to use, as explained by R. W. Finley, in his "The Original Forest Cover of Wisconsin" (Ph.D. dissertation, Geography, University of Wisconsin, 1951). At best, it should be remembered, they offer a surveyor's, not a scientist's view, and further, they represent a wide range of surveyors. Setting aside fraudulent returns (which are in fact rare), lapses of attention have been frequently noted (see, for example, Leslie Hewes and Philip E. Frandson, "Occupying the Wet Prairie...," *Annals of the Association of American Geographers*, Vol. 42, p. 19; and Hewes on the "Northern Wet Prairie of the U. S.," *idem.*, Vol. 41, p. 312).

Sometimes the notes used in research have been the extracts commonly accompanying plats, mentioned above. These extracts are ideal for quantitative tree studies, since they separately list the bearing trees marked at each survey corner, with a note on the species, diameter, distance and bearing of each tree. Good examples of their use may be found in a series of Indiana studies by the

late botanist J. E. Potzger and associates *(Butler University Botanical Studies,* Vol. X, Paper Nos. 5, 7, 9, 12, and 13).

An idea of the potentialities of the survey records can be gained from an enumeration of some of the kinds of information already derived from them, as follows: (1) Archeological sites: the government surveyors occasionally encountered and noted such features as prehistoric mounds which have been reduced or obscured by occupance. For an example of the use of such information, see J. G. McAllister on the archeology of Porter County, Indiana *(Indiana History Bulletin,* Vol. 10, pp. 15, 16). (2) Indian trails: the surveyors were inconsistent in noting the intersections of their lines with trails, yet several researchers have used the records to good effect for reconstruction purposes. For a major example, see the maze of trails portrayed in W. B. Hinsdale's *Archeological Atlas of Michigan* (Ann Arbor, 1931). (3) Pioneer trails: these too have received attention, nowhere more ambitiously than in Archer B. Hulbert's monumental reproduction of 9000 miles of western trails, all drawn from the survey plats. See his *The American Transcontinental Trails,* six blueprint volumes (Colorado Springs, 1925–1928). (4) Features of prior settlement: these were recorded not only where squatters had illegally settled in advance of the surveys, but where surveys closed in on sites of long-established French, Spanish, and Mexican settlement. For use of survey information on prior French settlement, see G. T. Trewartha, "The Prairie du Chien Terrace...," *Annals, Association of American Geographers,* Vol. 22). (5) Streams: the surveyors regularly noted their crossings of streams, and they "meandered" the edges of navigable waters. The possibilities here for checking subsequent changes are obvious. One of the earliest exploitations of this opportunity appears on a map completed in 1878 by the Army Engineers of the Minnesota and Mississippi Rivers, at six miles to the inch (MS, Cartographic Records Branch, National Archives). (6) Vegetation: by far the greatest attention has been given this subject by researchers, largely in the form of attempts at forest reconstruction. From among more than twenty studies by botanists, these four Wisconsin examples are chosen for illustration: N. C. Fassett, in *Transactions Wisconsin Academy of Sciences, Arts and Letters,* Vol. 36, R. S. Ellarson, *idem.,* Vol. 39, Grant Cottam, in *Ecology,* Vol. 30, and F. W. Stearns, *idem.,* Vol. 30.

Perhaps Sauer, in a letter, speaks for many geographers when he says that the exploitation of these records "seems such an obvious thing to do." Beyond the instances of use by geographers already cited, and studies by graduate students at the University of Michigan and the University of California, certain additional work should be noted. The plats and notes have served as an important source in sequent occupance studies covering the Calumet Region southeast of Chicago (A. H. Meyer, in *Annals, Association of American Geographers,* Vol. 44), the Driftless Hill Land along the upper Mississippi River (G. T. Trewartha, in *Annals, Association of American Geographers,* Vol. 30), and Cherokee lands in the Oklahoma Ozarks and Prairie Plains (Leslie Hewes, in *Chronicles of Oklahoma,* Vol. 22). Especially extensive are the compilations done by F. J. Marschner, working as a researcher for the Department of Agriculture. Marschner's derivations from the plats and notes for Illinois, Wisconsin, New Mexico, and Wyoming contributed to the vegetation, soils and landforms sections in the *Atlas of American Agriculture* (Dept. of Agriculture, 1936). A Marschner map, "Original Forests of Michigan," has been re-drawn, and published by the Wayne University Press (Detroit, 1946). Copies of an unpublished map, "Original Forests of Minnesota," may be seen at the Department of Agriculture, and at the Lake States Forest and Range Experiment Station, St. Paul, Minnesota.

In looking forward to further use of the survey records by geographers, one takes for granted the fact that the plats and notes have been almost completely

superseded as sources of currently valid information. Their attractiveness lies in the access they offer to details of past landscapes. Research to date suggests that the records especially commend themselves as sources for forest reconstruction. Geographers with an interest in forwarding this type of work are referred to an excellent critical study, Eric A. Bourdo's "A Validation of Methods Used in Analyzing Original Forest Cover" (Ph.D. dissertation, Forestry, University of Michigan, 1954; available through inter-library loan). For geographers interested in the recovery of past landscapes along any of the several lines indicated in the present report, attention is directed to the smallness of total average of the studies already completed, compared with the vast extent of the lands surveyed. For future work, these same studies provide definite and encouraging precedents.

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NOMINATIONS FOR 1956

The Nominating Committee presents the following candidates:

For President:	Clarence F. Jones
For Vice President:	Robert M. Glendinning
	Chauncy D. Harris
	Lester E. Klimm
For Treasurer:	Wallace W. Atwood, Jr.
	Herman F. Otte
For Councilors:	F. Kenneth Hare
	Richard F. Logan
	Alfred H. Meyer
	Guido G. Weigend

The Council nominates the following candidates for elective committees:

For Credentials Committee:	E. Willard Miller
For Nominating Committee:	Rayburn W. Johnson
	Raymond E. Murphy
	James J. Parsons
For Honors Committee:	Samuel T. Emory
	Glenn T. Trewartha
	John C. Weaver

BIOGRAPHICAL INFORMATION ABOUT THE CANDIDATES

Each group of nominees for a given office was asked, by identical letters from the Chairman of the Nominating Committee, to help the members by supplying information pertinent to the categories set forth for the respective office on page 13 of *The Professional Geographer* for January 1955. All complied.

NOMINEE FOR PRESIDENT:

Clarence F. Jones, Ph.D.

Chairman, Geography Department, Northwestern University

Experience with AAG business: Vice President and Regional Divisions Committee Chairman 1955; represented the Association at the West Lakes Division meeting, October 1955, the New England–St. Lawrence Valley Geographical Conference, October 1955, and the East Lakes Division meeting, November 1955; executive Committee of the Council 1955; Co-Chairman, Committee on American Geography and Co-Editor, *American Geography: Inventory and Prospect* 1949–54; Vice President and Program Committee Chairman 1947; Committee on Field Studies 1945–47; Council 1938–40; Credentials Committee Chairman (re membership) 1938–39; various other Committees.

Experience in administration: present administrative position since 1951; Secretary Clark University Graduate School of Geography c.1931–42; Chairman, Clark University Graduate Board c.1933–40; Director, Rural Land Classification Program, Puerto Rico, 1949–52; Chairman, Organizing Committee, III Consultation on Geography, PAIGH, 1952; President, Geographic Society of Chicago, 1953–55; Director, Area Analysis Project, National Planning Association, 1943–44; directed many projects of the Europe–Africa Division, Office of Strategic Services, 1944–45; various committees of the Commission on Geography, PAIGH, 1949–55.

Experience in presiding: In addition to presiding in connection with the foregoing, for four years presided at all the meetings of the Desert and Tropic

Division, Research and Development Board; from 1949 to 1952, and in the summer of 1955 presided at many meetings of one or more government departments in Puerto Rico.

Experience in presenting geography to non-geographers: This was involved in the Puerto Rico Land Classification program; as a member of inter-discipline committees in the academic field; as President of the Chicago Geographic Society.

Experience in representing a group: Involved in above activities.

Breadth in the field: Chief interests Latin America and economic geography but broadly interested in the whole field.

Nature and extent of research: Field studies in all countries of South America including recent work in the interior of Brazil with a team of young geographers from Conselho Nacional de Geografia; several books and many articles, principally dealing with economic geography and Latin America; recently published the *Rural Land Classification Program of Puerto Rico,* Northwestern University Studies in Geography, Number 1; chief editor, *Symposium on the Geography of Puerto Rico,* University of Puerto Rico Press, April 1955, 503 pages.

Availability: "So far as I can tell at the moment, I should be able to devote considerable time to the service of the Association for the next two years."

NOMINEES FOR VICE PRESIDENT:

Robert M. Glendinning, Ph.D.

Professor of Geography, University of California, Los Angeles

Experience with AAG business: Councilor 1951–54; service on Awards, Membership, Geography Curriculum, Nomination, and Constitution and By-laws Committees; Editorial Board of the *Annals* 1951–53.

Experience in administration: University administrative committees; administration or partial administration of field groups and field surveys (incl. T.V.A. work); institutes; department Chairman (U.C.L.A., 1949–53); officer of Association of Pacific Coast Geographers; etc.

Experience in presiding: considerable (including university meetings, professional section meetings, special groups, etc.).

Experience in presenting geography to non-geographers: considerable (perpetual motion seems attained), as in connection with public groups, teachers, educational administrators, etc.

Experience in representing a group: considerable (duties normally have entailed such representation).

Breadth in the field: physical geography, regional geography, arid land geography, land inventory, land planning.

Nature and extent of research: field studies in and publications concerning parts of the South, Great Lakes Region, U. S. Southwest, and French Canada (plus reconnaissance knowledge of most sections of U. S.).

Availability: "prophesy is difficult, but expect to be available."

Chauncy D. Harris, Ph.D.

Professor of Geography and Dean, Division of Social Sciences, University of Chicago

Experience with AAG business: Secretary 1946–48; Editor of the Newsletter 1946–47; Chairman, Joint AAG–ASPG Committee on Amalgamation 1948; member, Committee on Central Office 1950; Constitutional Review Committee 1951–52; Nominating Committee 1953; Program Committee 1952; Committee on Exchange of Publications 1955; Chairman, Publications Review Committee 1955–56.

Other experience with geographers: Committee on Geographic Research Techniques, Research and Development Board 1947–53; Committee on Economic Geography 1952–53; National Research Council, Committee on Geography, Advisory to the Office of Naval Research 1954–; U. S. Committee on the International Geographical Union 1949–; Committee on Commissions, International Geographical Union 1949–52; Committee on World Directory of Geographers 1949–52; Second Vice President, Geographic Society of Chicago 1955–.

Experience in administration and presiding at meetings: Chief, Ports and Urban Studies Section, Far Eastern Division, Office of Strategic Services 1944–45; Chairman, Chicago Committee on the Chicago–Frankfurt Interuniversity Project 1951–; Member, Board of Publications, University of Chicago Press 1951–55; President, University of Chicago Chapter of Sigma XI 1955–; Dean, Division of the Social Sciences, University of Chicago 1954–.

Other experience: Delegate, American Council of Learned Societies 1949–50; Consultant, Ford Foundation, Soviet and East European Area Training Scholarships 1954; Member, Joint Committee on Slavic Studies, Social Science Research Council and the American Council of Learned Societies 1955–.

Nature and extent of research: Research and articles on Soviet cities, agricultural and industrial resources of the USSR, the Ruhr, refugees in Germany, functional types of American cities, the market as a factor in industrial localization, manufacturing geography, and bibliography of geography in the *Geographical Review, Economic Geography, Annals of the AAG,* and the *Journal of Geography.* Editor of American edition of *Economic Geography of the USSR.* Co-compiler of *A Union List of Geographical Serials.*

Availability: expects to be available.

Lester E. Klimm, Ph.D.
Professor of Geography, University of Pennsylvania

Experience with AAG business: Council 1944–46; Chairman AAG Committee on Merger of AAG and ASPG 1848–49.

Experience in administration: Vice Chairman, Division of Geology and Geography, National Research Council 1945–48; Head Geographer, Topographic Branch, Military Intelligence Division, War Department 1942–45.

Experience in presiding: involved in experience listed above.

Experience in presenting geography to non-geographers: practically continuous throughout professional career.

Experience in representing a group: AAG representative on AAAS Council 1954–; Council, American Geographical Society 1946–.

Breadth in the field: broadly experienced in the field as Deputy and Member, Committee on Geophysics and Geography, Research and Development Board, Department of Defense 1948–53.

Nature and extent of research: research in population geography, congested districts of Ireland, military geography, northeastern U. S., methods of geographic generalization, economic geography.

Availability: After accepting nomination and just prior to the circulation of the Committee's report, Prof. Klimm learned that he will probably NOT be available for service to the AAG in 1957–58.

NOMINEES FOR TREASURER:

Wallace W. Atwood, Jr., Ph.D.
Director, Office of International Relations, National Academy of Sciences–National Research Council

Experience with AAG business: Council 1949–52.

Experience with financial matters: chairman, Finance Committee, International Geographical Congress 1952; Director, including responsibilities as treasurer, Clark University Geographical Excursions, Inc. 1933–43; Secretary, Clark University Graduate School of Geography 1940–43.

Experience on working committees: Chairman, USA National Committee for the International Geographical Union 1949–; USA National Committee for the International Geophysical Year 1953–; Unesco International Advisory Committee on Scientific Research 1952–.

Nature and extent of research: Field research and extensive publication in physiography and glacial geology, principally in western United States 1926–43; current research on international scientific organization and international cooperation in all areas of science.

Herman F. Otte, Ph.D.

Professor of Economic Geography, Columbia University

Experience with financial matters: Has developed and maintained close contacts with investment consultants and their affiliated research departments.

Experience on working committees: Member of various working committees of Columbia University, for example, University Committee on Areal Studies 1943–44; Committee on Instruction of the Graduate School of Business 1943–46 and 1950–53; Executive Committee of Graduate School of Business and Chairman of its Subcommittee on Student Body and Faculty 1953–55.

Nature and extent of research: Studies of the raw material and resource position of the United States and of the locational pattern of manufacturing.

Publications: *Industrial Opportunity in the Tennessee Valley of Northern Alabama,* Columbia University Press; *The Expanding Mineral Industry of the Adirondacks,* Bulletin 10 of the New York State Department of Commerce; and one of the authors of Chapter IX, "Factors Affecting Population Distribution" in *The Determinants and Consequences of Population Trends* by the Department of Social Affairs of the United Nations.

NOMINEES FOR COUNCILORS:

F. Kenneth Hare, Ph.D.

Professor and Head, Department of Geography, McGill University

Experience with AAG business: Chairman, Local Arrangements Committee, 1956 meeting; Program Committee 1955.

Experience as spokesman for a group: Councilor, two terms, Canadian Association of Geographers; President, McGill Association of University Teachers.

Experience on working committees: As noted under AAG business, and also on climatic atlases working group, World Meteorological Organization.

Field of geographic interest: Climatology, meteorology, geomorphology, and air photo interpretation.

Nature and extent of research: Director, McGill University Observatory; McGill Subarctic Research Laboratory; and, Arctic Meteorology Research Group.

Richard F. Logan, Ph.D.

Associate Professor of Geography, University of California, Los Angeles

Experience with AAG business: Credentials Committee 1953–55, Chairman 1955; Program Committee 1955–56; Membership Committee 1950–51.

Experience as spokesman for a group: AAG delegate to International Arid Lands Conference 1955; Co-Leader, Transcontinental Excursion, XVII International Geographical Congress 1952.

Experience on working committees: Field Techniques Committee, Centennial Program, National Research Council 1949–52; Committee on Geography,

Advisory to the Office of Naval Research, NRC 1952–55; Committee on Topographic Maps, NRC 1952–55, Chairman 1955; Executive Committee, National Speleological Society 1950–52, Publications Committee 1951–53, Executive Committee Southern California Section 1948, Secretary 1948–50, Chairman 1950–51; Advisory Board, Palm Springs Desert Museum 1954–.

Fields of geographic interest: Arid lands; field techniques.

Nature and extent of research: Earlier research in geomorphology and land use in New England; current research on desert mountain areas – landforms, vegetation, climate and human occupance.

Alfred H. Meyer, Ph.D.

Head, Department of Geography and Geology, Valparaiso University

Experience with AAG business: Chairman, Nominations Committee 1954; planned the Social Geography sectional program for the 50th Anniversary meeting and presided at that section; regular attendant and several times program participant in AAG meetings.

Experience as spokesman for a group: President, National Council of Geography Teachers (1947) after serving on the Executive Board and as Vice-President; President, Indiana Academy of Science 1955; President-Designate, Indiana Academy of Social Science 1955–56, responsible for planning its general session program; sponsored the organization and "initiation" of a Geography Section in the Indiana Academy of Social Science 1954, and as the first Geography Vice-President arranged its premiere Geography sectional program; sponsored organization of the Valparaiso Citizen's Advisory Planning Council and served as its first Chairman; President, Valparaiso City Plan Commission 1948–50.

Experience on working committees: As noted above under *Experience with AAG business.*

Fields of geographic interest: Geographic Education; Geographic Planning; Social, Historical, and Political Geography.

Nature and extent of research: A score of published professional articles, including chapter contributions to two books.

Guido G. Weigend, Ph.D.

Chairman, Department of Geography, Rutgers University

Experience with AAG business: Chairman, New York Metropolitan Area Division 1955–56, vice-chairman 1954–55; Editorial Board of the *Annals* 1955–; Membership Committee 1953–.

Experience as spokesman for a group: Liaison representative of Rutgers University to the United Nations 1950–52.

Experience on working committees: Chairman, Foreign Delegates Committee, International Geographical Union 1951–52; U.S.A. National Committee, I.G.U. 1951–.

Fields of geographic interest: Europe and the Mediterranean, ports and ocean transport, political geography.

Nature and extent of research: Over the past 12 years, field work and research in Mediterranean and Western Europe. Among publications are: book in "The Cultural Pattern of South Tyrol" 1949; articles within the fields of principal interest in American and European journals, notes and reviews.

MONTREAL MEETING OF THE ASSOCIATION, APRIL 1956

The Program Committee, in announcing the preliminary program for the Montreal meeting in April 1956, wishes to express appreciation to the membership for easing the committee's work by following the rules for abstracts so carefully and for submitting a large and varied list of titles. Two general sessions were specified by the Council – *The St. Lawrence Seaway* and *The Arctic*, arranged respectively by Dr. Harold M. Mayer and Dr. Trevor Lloyd. The Program Committee voted unanimously to continue *The President's Program* as a planned general session; this year the program was arranged by Dr. Louis O. Quam. Of the remaining twelve sessions, one is an invited session and eleven are developed from abstracts submitted to the committee. Dr. A. W. Küchler was requested by the committee to arrange the session on *Biogeography*.

In making its selections, the committee was guided by five major considerations: 1) the research quality of the paper as evidenced by the abstract; 2) the balance of varied interests indicated by the titles submitted; 3) the desirable unity of individual sessions; 4) the availability of time during the meeting; and, 5) within any one category, the relative frequence with which the contributors had appeared on past programs.

PRELIMINARY PROGRAM

SUNDAY, APRIL 1

9 A.M. – 5 P.M. . . . . FIELD TRIP – St. Lawrence Seaway installations at Cornwall, Beauharnois, etc.
6 p.m. – 12 Midnight. . . ADVANCED REGISTRATION

MONDAY, APRIL 2

8 A.M. – 11 A.M. . . . REGISTRATION
11 A.M. – 11:45 A.M. . . GENERAL SESSION – *Welcoming Session*
12 Noon . . . . . SPECIAL LUNCHEONS
1. University of California at Los Angeles
2. University of Washington

2 P.M. – 4 P.M. . . . . GENERAL SESSION – *The St. Lawrence Seaway* (arranged by Harold M. Mayer)
1. Alexander Melamid (New School for Social Research) – *The Impact of the St. Lawrence Seaway on the Economy of Cleveland, Ohio*
2. Donald J. Patton (University of Maryland) – *The External Port Relations of Halifax and St. John*
3. Wilbur Zelinsky (The Chesapeake and Ohio Railway Co.) – *The Effects of the St. Lawrence Seaway on the Chesapeake and Ohio Railway*
4. Richard S. Thoman (University of Omaha) – *A Foreign Trade Zone (Free Port) on the Great Lakes–St. Lawrence Seaway?*

4 P.M. . . . . OFFICIAL TEA
6 P.M. . . . . SPECIAL DINNER – University of Michigan
8 P.M. – 10 P.M. . . . THREE PARALLEL SESSIONS

A. *Biogeography* (Arranged by A. W. Kuchler)
1. Pierre Dansereau (University of Montreal) – *Criteria for a Regional Description and Interpretation of Vegetation*
2. F. K. Hare and A. Pattison (McGill University) – *The Forest Geography of the Peninsula of Labrador–Ungava: Report on a Program of 1:1,000,000 Aerial Survey*

3. Jonathan Sauer (University of Wisconsin) – *Recent Plant Migrations and General Biogeographic Theory*
4. A. W. Küchler (University of Kansas) – *Vegetation Maps in Geographical Research*

B. *Some Concepts in Geography*

1. William L. Thomas, Jr. (Wenner–Gren Foundation) – *Notes on the Concept of Culture*
2. Eric Fischer (Army Map Service) – *Some Comments on a Geography of Religions*
3. Benjamin E. Thomas (University of California at Los Angeles) – *The American Concept of Deserts and Oases*
4. J. Sullivan Gibson (University of North Carolina) – *The Land–Use Type as a Geographic Tool*
5. Andrew H. Clark (University of Wisconsin) – *The Use of the "Control Area" to Test Hypotheses in Broader Regional Studies*

To be presented by title

Albert S. Carlson (Dartmouth College) – *Non–geographic Factors in Resource Development: Illustrations from New England*

Henry J. Warman (Clark University) – *Significant Tempero–Spatial Elements of Human and Cultural Geography*

C. *Some Aspects of Urban Geography*

1. Stephen S. Visher (Indiana University) – *Changing Significance of Environmental Influences at Bloomington, Indiana*
2. H. Phillip Bacon (University of Pittsburgh) – *The Townscape of Nashville, Tennessee on the Eve of the Civil War*
3. Eleanor E. Hanlon (Syracuse University) – *Twenty Years of Change in a Portion of the Rural–Urban Fringe of Syracuse, New York*
4. William A. Withington (University of Kentucky) – *Suburban Migration: A Case Study of Winchester, Massachusetts, 1930–1950*
5. Preston E. James and Speridião Faissol (Syracuse University) – *The Problem of Brazil's Capital City*
6. William E. Wonders (University of Alberta) – *Repercussions of War and Oil on Edmonton, Alberta*

To be presented by title

Jerome D. Fellman (University of Illinois) – *Urban Success in Illinois*

Pradyumna Karan (Indiana University) – *The External Forms of Indian Cities*

David H. Kornhauser (Pennsylvania State University) – *The Nature and Function of City Planning in Japan*

TUESDAY, APRIL 3

7:45 A.M . . . . . SPECIAL BREAKFASTS

1. Northwestern University
2. Office of Naval Research

9 A.M. – 11 A.M. . . . THREE PARALLEL SESSIONS

A. *Statistical Method in Geography*

1. Arthur D. Robinson (University of Wisconsin) – *A Method for Expressing Quantitatively the Correspondence of Mapped Distributions*
2. Leonard Zobler (Columbia University) – *Using Significance Tests to Organize Economic Regions*
3. John C. Hook (Dartmouth College) – *The Areal Variation in the Value of Agricultural Land and Buildings in Northeastern United States*

4. Duane S. Knos (State University of Iowa) – *The Distribution of Substandard Housing, Kansas City, Missouri*
5. Walter F. Wood (Arctic Institute of North America) – *Increasing the Value of Small Scale Maps for Landform Study by the Use of Statistical Inference*

B. *Geography of Manufacturing – Further Aspects of Urban Geography*

1. Robert M. Sparks (University of Pennsylvania) – *An Analysis of Locational Changes in the Broad Woven Fabrics and Narrow Fabrics Industries between 1945 and 1955 in Pennsylvania Counties of the Philadelphia Standard Metropolitan Area*
2. John L. Thompson (Miami University) – *A Case Study of Interregional Labor Migration*
3. Tom L. McKnight (University of Texas) – *Aircraft Manufacture in Texas*
4. Peter H. Nash (Planning Department, City of Medford, Massachusetts) – *Evolving Acceptance of Geographic Thinking in City Management, Community Planning, and Urban Renewal*
5. Malcolm A. Murray (Miami University) – *An Exploratory Study in Urban Medical Geography*

To be presented by title

Wilber Zelinsky (The Chesapeake and Ohio Railway Co.) – *A Method for Measuring Change in the Relative Distribution of Manufacturing Activity*

Jack C. Ransome (Indiana University) – *The Localization of Wholesaling in the Boston Metropolitan Area*

C. *Union of Socialist Soviet Republics – Political Geography*

1. W. A. Douglas Jackson (University of Washington) – *Durum Wheat: A Struggle for an Essential Food in the U.S.S.R.*
2. Jordan A. Hodgkins (University of Cincinnati) – *The Energy Potential of Soviet Russia's Coal Fields*
3. Fred E. Dohrs (Wayne University) – *Heartland and World Ocean: A View of Soviet Geopolitical Theory*
4. Laurence Grambow Wolf (University of Cincinnati) – *Mineral Production and Contemporary Geopolitical Patterns*
5. Vincent H. Malmstrom (Bucknell University) – *Lappland: Northern Europe's Strategic Problem Area*

11 A.M. – 11:45 A.M. . . COFFEE BREAK

11:15 A.M. – 12:45 P.M. . . FOUR INFORMAL DISCUSSION GROUPS

A. *Essential Elements in the Training of Professional Geographers*
B. *Statistical Method in Geography*
C. *Publication Policies of the Association*
D. *Aerial Photo Interpretation*

1 P.M. . . . . SPECIAL LUNCHEON
University of Illinois

2:30 P.M. – 6 P.M. . . . LOCAL FIELD TRIP

6:30 P.M. . . . . SPECIAL DINNER
University of Wisconsin

8 P.M. – 10 P.M. . . . . GENERAL SESSION – *The Arctic*
(Arranged by Trevor Lloyd)

1. R. G. Robertson (Deputy Minister, Northern Affairs and National Resources) – *Title to be announced*
2. Louis O. Quam (Office of Naval Research) – *The Arctic Research Program of the Office of Naval Research*

3. Svenn Orvig (McGill University) – *The McGill University–Arctic Institute Carnegie Arctic Program*
4. J. Ross MacKay (University of British Columbia) – *Oriented Lakes of the Liverpool Bay Area, Northwest Territories, Canada*
5. Donn K. Haglund (Pennsylvania Railroad Company) – *Recent Economic Developments in the Godthaab District, Greenland*

WEDNESDAY, APRIL 4

7:30 A.M. . . . . SPECIAL BREAKFAST
Clark University

8:30 A.M. – 11:15 A.M. . . GENERAL SESSION – *The President's Program*
(Arranged and introduced by Louis O. Quam)

1. Arthur N. Strahler (Columbia University) – *Basic Principles Of Erosional Topography*
2. Richard J. Russell (Louisiana State University) – *Team Research in Coastal Geography*
3. C. Warren Thornthwaite (Johns Hopkins Laboratory of Climatology) – *Soil Water Budget and Its Application*

9:45 A.M. 10 A.M. . . . COFFEE BREAK

4. Lester E. Klimm (University of Pennsylvania) – *Analysis of Form, Shape, and Combination of Phenomena*
5. Harold H. McCarty (State University of Iowa) – *Measurement of Geographic Association*

11:15 a.m. – 12:45 P.M. . . FOUR INFORMAL DISCUSSION GROUPS

A. *The Teaching of Elementary Geography at the University Level*
B. *The Teaching of Geography at the High School Level*
C. *Cartography*
D. *Political Geography*

1 P.M. . . . . SPECIAL LUNCHEON
University of Illinois

2 P.M. – 4 P.M. . . . . THREE PARALLEL SESSIONS

A. *Asia and the Pacific*

1. Howard F. Hirt (University of Missouri) – *Historical and Cultural Influences on the Land Use Pattern of Aligarh, U. P., India*
2. David Firman (State Teachers College, Towson, Maryland) – *Current Expansion of Irrigation to Increase Food Production in the Gangetic Plain*
3. William H. Wallace (Rutgers University) – *The Distribution of Passenger Traffic on the New Zealand Railways*
4. John H. Thompson (Syracuse University) – *Urban Agriculture in Southern Japan*
5. Alden Cutshall (University of Illinois, Chicago) – *The Philippine Sugar Industry: Foundations and Prospects*
6. Frederick L. Wernstedt (Pennsylvania State University) – *Philippine Interisland Shipping and Trade*

To be presented by title

J. M. Blaut (United States Army) – *A Functional Study of Chinese Mixed Farming in Singapore*
John Wesley Coulter (University of Cincinnati) – *Economic Crisis in Hawaii*

B. *Middle America and the Caribbean*

1. Charles S. Alexander (University of Illinois) – *Effect of a Pastoral Economy Upon the Vegetation of a Desert Island*

2. Frank L. Keller (Tulane University) – *Emerging Land Patterns in Guatemala's Alta Verapaz: An Interim Report*
3. Berl Golomb (Universidad Nacional Autónoma de México) – *Reclamation and Utilization of an Apparent Wasteland*
4. Ching Chieh Chang (University of Maryland) – *The Chinese in Cuba and Jamaica: A Comparative Geographical Study*
5. James J. Parsons (University of California) – *The Green Turtle (Chelonia spp.): A Diminishing Food Resource of Tropical Seas*

To be presented by title

John P. Augelli (University of Maryland) – *Aspects of Industrial Genesis in an Underdeveloped Area: Post–War Development in Puerto Rico*

Rayfred L. Stevens (Universidad Nacional Autónoma de México) – *The Mexico City Picnic Area: A Study in Recreational Geography*

Mazie O. Tyson (Tennessee State University) – *The Danish–American Virgin Islands: The Changing Economy*

C. *The United States*

1. Richard F. Logan (University of California at Los Angeles) – *Suburbia in the Sun: The Desert Boom in the Southwest*
2. Samuel N. Dicken (University of Oregon) – *Land Forms and Land Use on the Southern Oregon Coast*
3. Clarence W. Olmstead (University of Wisconsin) – *The Role of Lake Michigan in the Orchard and Vineyard Fruit Industry*
4. R. Louis Gentilcore (Indiana University) – *Early Agriculture in the Vincennes Area, Indiana, 1735–1830.*
5. John W. Alexander (University of Wisconsin) – *United States Cities: Employment Category Variations by Size of Settlement*

To be presented by title

Henry Madison Kendall (Miami University) – *Crop Combinations in the American Northeast*

Eugene Cotton Mather (University of Georgia) – *Five Major Ranch Types of the Central Great Plains*

Willard Miller (Pennsylvania State University) – *Functional Changes of Villages in Western Pennsylvania*

4 P.M. – 5 P.M. . . . . ANNUAL BUSINESS MEETING OF THE ASSOCIATION

5 P.m. . . . . SPECIAL RECEPTION
Syracuse University

8 P.M. . . . . ANNUAL BANQUET
Address by the Honorary President – Carl O. Sauer
The Education of a Geographer

THURSDAY APRIL 5

9 A.M. – 11 A.M. . . . . THREE PARALLEL SESSIONS

A. *Europe*

1. Richard J. Houk (DePaul University) – *Some Significant Aspects of Portugal's Maritime Fishing Industry*
2. Dan Stanislawski (University of Texas) – *Agricultural Terraces in Portugal*
3. Albert J. P. McCarthy (Syracuse University) – *The Irish National Electrification Scheme*
4. Edna E. Eisen (Kent State University) – *Liebbecke in Westfalia: A Community Study*

5. H. Louis Kostanick (University of California at Los Angeles) – *Modern Athens: Its Evolution and Functions*
6. George W. Hoffman (University of Texas) – *The Role of Nuclear Power in Europe's Future Energy Supply*

To be presented by title

Robert E. Dickinson (Syracuse University) – *The Braunschweig Industrial Area*

John Fraser Hart (Indiana University) – *Recent Changes in the Agricultural Geography of Britain*

B. *Africa – The West Indies*

1. Walter W. Deshler (University of Maryland) – *A Study of Indigenous Population Distribution in a Semiarid East African Area*
2. Hibberd V. B. Kline, Jr. (Syracuse University) – *Dynamics of the Geography of Rice in Sierra Leone, West Africa*
3. David Lowenthal (Vassar College) – *Standing Room Only: The Population Anomaly of Barbados, British West Indies*
4. Cyrus J. Sharer (Cleveland, Ohio) – *The Growth of Nassau*
5. Peter M. Stern (The Conservation Foundation) – *The Impact of Bauxite Operations on Jamaica, British West Indies*

C. *Economic Geography – Weather and Climate*

1. Maurice Bernard Ballabon (McGill University) – *Some Aspects of Contemporary Economic Geography*
2. Howard H. Roepke (University of Illinois) – *Changing Sources of United States Mineral Supplies*
3. Urban J. Linehan (Catholic University of America) – *Areal Distribution of Tornado Deaths in the United States*
4. David H. Miller (Army Quartermaster Research and Development Center) – *Landscape and Climate: Topographic Influence on Heat Supply at the Earth's Surface*
5. Paul E. Lydorph (Los Angeles State College) – *A Comparative Analysis of the Dry Western Littorals*
6. Clyde E. Patton (Syracuse University) – *A Quantitative Assessment of the Thornthwaite Classification of 1948*

To be presented by title

Mildred Berman (State Teachers College, Salem, Massachusetts) – *What Geographers Are Doing in Business: A Case History*

Mary Megee (University of Minnesota, Duluth Branch) – *Germanium and Gallium: A Study of Some Economic Aspects of Two Rare Minerals*

David G. Osborn (The Kroger Co.) – *Applied Geography in a Grocery Chain*

Iven Bennett (Army Quartermaster Research and Development Center) – *Some Maps of the Frequency and Intensity of Glaze in the United States*

Paul C. Dalrymple (Army Quartermaster Research and Development Center) – *Recent Developments in the North Atlantic Ocean Weather Program*

9 A.M. – 5 P.M. . . . . FIELD TRIP – The Laurentian Mountains

ACCOMMODATION IN MONTREAL

Hotel	Single with Bath	Double with Bath	Distance from Sheraton-Mount Royal Hotel
Convention Hotel			
*Sheraton-Mount Royal	$6.35–$9.35	$9.35 and up	0 blocks
Other Hotels			
Windsor	$7 and up	$11 and up	3 blocks
Berkeley	$6–$7	$9–$10	3 blocks
Laurentien	$6.85–$8.35	$9.85–$11.35	4 blocks
Ritz-Carlton	$7.50 and up	$12 and up	5 blocks
Queens	$6–$8	$9–$12	5 blocks
La Salle	$6–$6.50	$9.50–$10	6 blocks
Christian Associations (rooms with running water)			
YMCA	$2.50	$4	2 blocks
YWCA	$3–$4	$5.50–$7	8 blocks

Motels – There are numerous motels on Highways 2, 4, and 9 approaching the city.

*Association Headquarters, where all meetings will be held. Five hundred rooms have been reserved. Please identify yourself as a delegate to the AAG meeting when making reservation. Some rooms for students have been set aside at $4 per bed.

Climate

Mean daily temperature in Montreal in early April is about 35°F. The snow has usually gone, but fresh fall sometimes occurs. Temperatures below 15° *may* occur, but are highly improbable.

Transportation and other information

U. S. citizens should carry some identification when entering Canada, and proof of citizenship may be required when re-entering the U.S.A. Other nationals should at once consult the nearest Canadian consul. Crossing the U.S./Canadian border is usually easier than going to a ball game!

Airlines: N.B. All fares are to Montreal and return

Trans-Canada
From Chicago, $100.80, 4 flights daily
From Cleveland, $ 75.60, 4 flights daily
From New York, $ 43.00, 6 flights daily, chiefly Viscounts

Colonial
From New York, $ 43.00, 6 flights daily
From Washington, $ 70.40, one flight daily (8 a.m. and subject to change)

North East
From Boston, $ 36.00, 3 flights daily

The following fares have been quoted for air travel to Montreal and return:

From:

Seattle	$203.00	air coach
Los Angeles	$203.00	air coach
New Orleans	$143.35	first class
Miami	$144.00	air coach

Railways

N.B. All fares return first class with lower berth unless otherwise stated

From Chicago	Grand Trunk and Canadian National $93.75, 3 trains daily
	New York Central and Canadian Pacific, similar service and fare, no through cars
From New York	N.Y.C. and D. and H., day and night trains $43.25
From Cleveland	N.Y.C. and C.P. $43.83
From Washington	Penn. and C.N., through service $66.30
From Boston	B. & M. and C.P., by night $42.35
	B. & M. and C.P., by day $21.69, coach
From Seattle	$232.60
From Los Angeles	$248.00
From New Orleans	$154.00
From Miami	$171.00

Map Display

Institutions and individuals are advised that space is available free-of-charge for the display of research maps, made since 1950, and considered to be of interest to AAG members from the point of view of method or content. Kindly send maps and pertinent data before February 29, 1956 to Dr. Bogdan Zaborski, Department of Geography, McGill University, Montreal, P.Q., Canada.

Field Trips

An all-day field trip is to be held on Sunday, April 1st. Advance registration is required of necessity for this field trip, and indication of intent to attend is requested for the other two field trips. Kindly copy and fill in the form below, and send it to: Dr. F. Kenneth Hare, Chairman of Local Arrangements, AAG., Department of Geography, McGill University, Montreal, P.Q., Canada. *Send no money.*

I plan to attend the following field trips:

St. Lawrence Seaway, Sunday, April 1, 9 a.m. to 5 p.m. (Approx. $3) _____

Montreal Urban Area, Tuesday, April 3, 2 to 5 p.m. (Approx. $1.50)_____

The Laurentians, Thursday, April 5, 9 a.m. to 5 p.m. (Approx. $3)_____

Note: The field trip prices do not *include* meals.

Name _____

Address_____

EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council met from 9:15 a.m. to 6 p.m. on November 12, 1955 at the Library of Congress. Subject to approval by the full Council, the Committee took the following actions:

1. Established the position of Book Review Editor for the *Annals* and appointed Norton Ginsburg to the position.
2. Asked the Central Office to prepare an analysis of factors involved in decrease of income from the *Annals*.
3. Requested the Publications Committee to give further consideration to prices for reprints from the *Annals*, and to prices for back issues.

4. Relieved the Publications Committee of its assignment relating to a special publication on the relationship of geography to other social sciences, since a geographer is already preparing a book on the subject.
5. Rejected a proposal by a member of the Association to prepare on a continuing basis, for publication in *The Professional Geographer*, an annotated bibliography of current social science literature.
6. Authorized appointment of a committee of five with staggered five year terms to pass upon the memorialization of deceased members in the *Annals*. The committee will be asked to draft a general policy for consideration by the Council.
7. Authorized the Publications Committee and the editors to prepare a manual of specifications and regulations for manuscripts submitted to the *Annals*.
8. Authorized a new Committee on Maps for the National Atlas, to cooperate with the National Atlas Committee of the National Research Council and encourage the compilation of desirable Atlas plates.
9. Scheduled a meeting of the Council for Saturday, March 31, 1956 at 10 a.m. in Montreal.
10. Accepted with regret the resignation of Stephen Jones as Chairman of the Publications Review Committee.
11. Directed that the Membership Committee report be sent to heads of geography departments and that a letter be written to the Civil Service Commission pointing out the difficulty of interesting geographers in government jobs.
12. Named Louis O. Quam to serve as AAG representative on the National Research Council, Earth Sciences Division, upon expiration of the term of Guy-Harold Smith.
13. Decided that the Association's over-all review of its publications program should be completed before considering the ACLS proposal for a central agency for the distribution of publications of constituent societies.
14. Approved the classification of committees as listed in the July 1955 issue of *The Professional Geographer*.
15. Authorized a new committee to survey the experiences of geographers in business.
16. Requested the Treasurer and the Central Office to present at the next meeting recommendations covering the allocation of income from *American Geography*.
17. Set the price of the AAG mailing list at $20.
18. Placed on the agenda for the Montreal meeting a recommendation that payments to regions be set at 5% of the amount of dues paid by members, except life members.
19. Designated the Secretary as an alternate to sign checks in the absence of the Treasurer.
20. Accepted the invitation to hold the 1958 Annual Meeting in Los Angeles.
21. Requested Meredith F. Burrill to present, in about six months, suggestions for a study of the status of geography in elementary and high schools and among lay people.
22. Amended and approved a questionnaire on time and place of annual meeting.
23. Provided that Division Chairmen will serve on the Council during their actual terms of office. This rescinds a previous Council action intended to eliminate Council membership changes during the Association year. The change makes it imperative that the Central Office be notified promptly upon election of new Division Chairmen.

REGIONAL DIVISIONS

NEW ENGLAND– ST. LAWRENCE VALLEY

On October 29, 1955, the Graduate School of Geography of Clark University served as host department for the thirtieth annual meeting of the New England–St. Lawrence Valley Geographical Conference. Of a total membership of nearly 300 members, 160 some members registered for the Conference. The morning session was devoted to the presentation and discussion of papers and a visit to a map exhibit in the Geography Work Room. The luncheon meeting, attended by 125 persons and presided over by Chairman Harold J. Weins, Yale University, was followed by a business meeting and annual election of officers. The group voted to meet next year at Rhode Island State College. The afternoon was devoted to two field trips.

The central theme of the papers and discussions of the morning session, "Putting Urban Geography to Work," was introduced by Raymond E. Murphy, Clark University, who spoke briefly on the practical work being done in urban geography in various centers in the United States. Mr. G. W. Schultz, Clark University, presented the techniques used in, and the results of, months of field work in "Finding Industrial Sites for a New England Community," the Springfield–Hartford area. With slides showing specific examples, he illustrated the criteria considered and the various techniques used in the final selection by the "screening method" of possible industrial sites, arranged in five different categories of suitability for industrial development. Bart J. Epstein presented the results of detailed field studies of "Food Trading Patterns in a New England Community," using slides to illustrate shopping habits in relation to store location in Quincy, Mass. Charles E. Downe, Deputy Commissioner of the Massachusetts Department of Commerce, under the title "The Planner Looks at Urban Geography" outlined the characteristics of research and planning needed for a successful planning program and demonstrated these by the Naponset Drainage Basin Development Program. He stated that in order to be successful planning had to be (1) sufficiently comprehensive to include the entire complex of human activities or community life, (2) long range in character so as to include the implications of daily decisions and of decisions to be made ten or fifteen years from now, (3) regional in approach, involving all physical and cultural aspects of an area in association with each other, (4) flexible within the fundamental framework of basic goals set for achievement, (5) continuous from month to month and from year to year so as to be effective through time and with changes. Mr. Downe illustrated with twelve colored maps of the Naponset Drainage Basin Development Program the types of work that had to be done by the urban geographer and the planner. He stated that the first eleven maps, involving such things as political divisions, relief, transportation, ownership of land, traffic flow, land use, etc., are the types of work urban geographers do, and all provide basic data for the planner to use in making the final map of "developmental plans as a basis for community action."

The papers and the discussions demonstrated to the audience the value of presenting in a coordinated program the results of months of field work and research on various problems and aspects of a specific field of geography.

The afternoon excursions included a trip led by Richard J. Lougee to "Purgatory: A Problem in Physiography" and a trip led by S. Van Valkenburg to "Armory Museum and Worcester Pressed Steel Company." About 90 persons took part in the field trips.

The following officers were elected for 1955–56:

President, Dr. Samuel Van Valkenburg, Clark University, Worcester, Mass.;
First Vice President, Howard L. Green, 393 D Street, Boston, Mass., Stop and Shop, Inc.;
Secretary–Treasurer, Minnie E. Lemaire, Mount Holyoke College, South Hadley, Mass.;
State Vice Presidents:
Maine, Myron Starbird, State Teachers College, Farmington;
New Hampshire, Albert Carlson, Dartmouth College, Hanover;
Vermont, Florence Woodward, University of Vermont, Burlington;
Massachusetts, Barbara Stiles, Weston High School, 24 Hammond Street, Waltham 54;
Rhode Island, Chester Smolski, Rhode Island College of Education, Providence;
Connecticut, Joseph Hoyt, New Haven State Teachers College, New Haven;
Canada, J. Brian Bird, McGill University, Montreal.

EAST LAKES DIVISION

The fall meeting of the East Lakes Division was held in Ann Arbor on November 4 and 5, with the Department of Geography, University of Michigan as host. The Friday evening meeting was highlighted by an address by Professor Clarence F. Jones, Vice President, Association of American Geographers entitled "Pioneer Settlements in the Central West of Brazil." This lecture was included in a series of Latin American Lectures being held on the University of Michigan campus and was attended by 75 people. The coffee hour and business meeting following drew approximately 40 people.

The Saturday morning session consisted of two informal group discussions. The first, entitled "Field Geography", was led by Charles M. Davis, University of Michigan. The second, on "Problems of Introductory Geography", led by Malcolm A. Murray, Miami (Ohio) University. Panel participants were: L. B. Karnes, Bowling Green University; C. L. Vinge, Michigan State University; W. J. Berry, Western Michigan College; F. E. Dohrs, Wayne University; M. E. McGaugh, Central Michigan College; and, M. Danklefsen, Western Reserve University. The noon luncheon was addressed by Shirley W. Allen, Professor Emeritus of Forestry, University of Michigan on the topic, "Steering Michigan State Lands into Good Use". Approximately 55 attended the morning sessions and 47, the luncheon.

An invitation was accepted from the Department of Geography, Michigan State University, to hold the spring meeting at the Michigan State University Biological Station at Gull Lake, near Battle Creek, Michigan. Tentative dates are May 11–12, 1956.

NEW YORK–ONTARIO DIVISION

The annual meeting of the New York–Ontario Division was held October 14 and 15 at Massena, New York. Martin Johnson, geographer at State University Teachers College at Potsdam, and Paul Busch, geographer at St. Lawrence University, in charge of local arrangements, also presented a stimulating program. The Division Chairman, George Cressey, is on leave for geographic research in the Near East.

The theme for the conference was *The St. Lawrence Seaway and Power Development.*

Friday morning the group visited the Aluminum Company of America plant and had lunch in Alcoa's cafeteria. In the afternoon Mr. Luke Hale, Project

Engineer of the Seaway Development Corporation, conducted a tour of the American side of the Development after explaining developments along the Seaway. At the dinner meeting power development along the Raquette River was reviewed and a film was shown.

Saturday morning members of the Association met with C. G. W. MacIntosh, Information Officer of Ontario Hydro, who led a survey of the Power and Seaway development on the Canadian side of the St. Lawrence. In the afternoon the factory of Courtaulds Canada, Ltd., producers of Viscose yarn and fiber, was visited.

A banquet was held Saturday evening at King George Hotel in Cornwall, Ontario, and a business meeting and program followed. The guest speaker was William Hogg, Project Engineer for the Hydroelectric Commission of Ontario.

At the business meeting the following officers were elected:

Chairman – Donald Roznowski, New York State Department of Commerce;
Vice Chairman – Harold Wood, McMaster University;
Secretary–Treasurer – Gladys Gilbert, State University Teachers College at Oneonta.

The 1956 meeting will be held at State University Teachers College at Albany; Howard Flierl will serve as host.

AAG RESEARCH FUNDS AVAILABLE

Funds are available for grants in aid of research in physical geography and in other aspects of the field. Those who wish to apply for grants in 1956 should do so in time for the Research Grants Committee to review the proposals before the March 31 Council meeting.

NEW CHAIRMAN APPOINTED

Chauncy D. Harris has been appointed Chairman of the Publications Review Committee succeeding Stephen B. Jones, who found it necessary to resign.

ATTENTION

Have you sent in the information card for the new AAG Directory? The deadline for receipt of the cards is January 30, 1956 for members in continental United States, and February 20, 1956 for members overseas, including those with APO addresses.

ANNOUNCEMENTS AND REPORTS

XVIII INTERNATIONAL GEOGRAPHICAL CONGRESS

On the first and fifteenth of each month beginning last November, the short wave station of Brazil's Ministry of Education broadcasts a special international news program about the forthcoming Congress. The broadcast is at 9:30 p.m., Greenwich time, on 25.10 meter wave band, frequency 11.95 kilocycles.

The latest communication from Secretary–General Stemberg lists the following titles of papers received up to November 1 from adhering members in countries other than Brazil:

Section I – Cartography and Photogeography

BOESCH, Hans; Zurich, Switzerland – *Untersuchungen über die Bedeutung der Tages-Jahreszeiten bei Flugbildauswertungen.*

CARMIN, Robert L.; Illinois, U.S.A. – *A Railroad traverse land use map by the time-lapse method (Uberlandia, Minas Gerais to Pires do Rio, Goiás).*

GUILCHER, André; Nancy, France – *Utilisation des photographies aériennes dans l'étude des récifs coralliens.*

JOLY, Fernand; Rabat, Morocco – *Representation simultanée des faits caractéristiques concernant la géographie physique et humaine. Exemple du Sud marocain.*

KRAL, Jiri; Praha, Czechoslovakia – *Aerial photographs in urban geography.*

KRAL, Jiri; Praha, Czechoslovakia – *Use of aerial photographs and aerial ethnography in the study of rural settlement and rural economy.*

NAKANO, Takamasa; Chiba-Ken, Japan – *Aerial photographs in lowland geomorphology.*

RAISZ, Erwin; Cambridge, Mass. – *The coming of the land type map.*

RUELLAN, Francis; Rio de Janeiro, Brazil – *La carte géomorphologique établie d'après les photographies aériennes.*

Touring Club Italiano; Milano, Italy – *L'activité géographique du Touring Club Italiano et l'Atlante Internazionale.*

WILHELMY, Herbert; Stuttgart, Germany – *Ein neuer Weltatlas in Farb-Diapositiven.*

Section II – Geomorphology

ANNAHEIM, Hans; Basel, Switzerland – *Über geomorphologische Karten.*

BIROT, Pierre; Paris, France – *Sur les reliefs résiduels des socles cristallins.*

BOESCH, Hans; Zurich, Switzerland – *Neuere Untersuchungen über alpine Structurböden.*

BLUME, Helmut; Kiel, Germany – *Probleme der Stufenlandschaft erläutert am Beispiel des Luxemburger Gutlandes.*

AUBERT DE LA RUE, Edgar; Paris, France – *Remarques sur les boucliers canadien et guyano-brésilien.*

AUBERT DE LA RUE, Edgar; Paris, France – *Morphologie des basaltes de l'archipel Kerguelen.*

CAPOT-REY, Robert; Alger, Algeria – *Carapaces ferrugineuses et formations latéritiques dans le Sahara.*

CLAYTON, Raymond Wilford; Achimota, Gold Coast – *The geomorphology of the Accra plains.*

DERRUAU, Max; Clermont-Ferrand, France – *Quelques résultats d'expériences d'altération des roches volcaniques et crystallophylliennes.*

DRESCH, Jean; Paris, France – *Surfaces d'aplanissement et reliefs résiduels en Afrique tropicale humide.*

FACON, Roger; Agoulème, France – *Les formations siderolithiques sur la bordure occidentale et méridionale du Massif Central Français.*

GUILCHER, André; Nancy, France – *L'envasement de l'estuaire du Rio Kapatchez (Guinée Française) et ses causes.*

HERMANN, Ernst; Osnabrück, Germany – *Growing and composition of ridges in the Atlantic and Pacific Ocean.*

JOURNAUX, André; Caen, France – *Concrétions ferrugineuses et morphologie lacustre.*

LAPEYRE, André; Paris, France – *Contribution à la théorie de la dérive des continents.*

MAGNANI, Mario José; Cordoba, Argentina – *Géomorphologie des Sierras Pampeanas.*

MAGNANI, Mario José; Cordoba, Argentina – *Les régions basaltiques du Sud de Patagonie.*

MELIK, Anton; Ljubljana, Yugoslavia – *Les poljes carstiques de Slovénie (Yugoslavie) au Pleistocène.*

NANGERONI, Giuseppe; Milano, Italy – *Paesaggi di decomposizione nei graniti nelle Prealpi e nelle Alpi Italiane.*

NANGERONI, Giuseppe; Milano, Italy – *Il fenomeno carstico nelle Alpi Occidentale (Italia).*

NEIVA, João Manuel Cotelo; Coimbra, Portugal – *Latérites de l'île du Prince.*

NEIVA, João Manuel Cotelo; Coimbra, Portugal – *Morphologie littorale de l'île de Porto Santo.*

NIELSEN, Niels; JAKOBSEN, Borge; JACOBSEN, Kingo e SCHOU, Axel; Copenhagen, Denmark – *Research, landreclamation and landplanning in Danish tidal areas and marshlands.*

NISHIMURA, Kasuke; Hiroshima, Japan – *Chugotu Mountains. A geomorphological study.*

PANZER, Wolfgang; Mainz, Germany – *The 2 meters storm wave platform as an eustatic bench.*

PASOTTI, Pierina; Rosario, Argentina – *Rasgos morfologicos de la ladera oriental del valle de Los Rostros, provincia de Córdoba.*

PIPPAN, Therese; Salzburg, Austria – *Blockbildung und Blockgenerationen im westlichen kristallinen Grundgebirge Oberösterreichs.*

POUQUET, Jean; Dijon, France – *Types et évolution du relief en Guinée française, plateau du Labé. A.O.F.*

PYE, Norman; Leicester, England – *Geomorphological relations of some British soil associations.*

SERMET, Jean; Toulouse, France – *Le problème de l'eustatisme sur la côte méditerranéenne d'Andalousie.*

TAILLEFER, François; Toulouse, France – *Les concrétions ferrugineuses du Sud-Ouest de la France et leur signification morphologique.*

TRIMMEL, Hubert; Wien, Austria – *Die Bedeutung des Studiums von Höhlen für die Geomorphologie*

VERSTAPPEN, Herman Th.; Djakarta, Indonesia – *A pseudo-karst area in Central Sumatra.*

YOSHIKAWA, Torao; Tokyo, Japan – *On the age of the formation of shallow sea floors around the Japanese Islands.*

YOSHIKAWA, Torao; Tokyo, Japan – *Coastal changes resulting from improvement of river channels in Japan.*

WILHELMY, Herbert; Stuttgart, Germany – *Hohlblockbildungen im semiariden u. vollariden Klima.*

Section III – Climatology

AMIRAN, David H. K.; Jerusalem, Israel – *Two types of border of aridity in Palestine.*

BATALLA, Angel Bassols; Mexico – *Critères géographiques pour l'établissement d'un réseau de stations météorologiques en Mexico.*

DINARES, Pablo Vila; Caracas, Venezuela – *Aspectos climatológicos de Venezuela.*

DORDICK, Isadore L.; Washington, D. C. – *The physical climatology and physiological climatology of the new Federal District of Brazil.*

FENELON, Victor; Vanves, France – *Classification des climats australiens, selon DeMartonne, Köppen et Thornthwaite.*

FRISBY, E. M.; Denver, Colo. – *Weather type sequences in Mexico.*

GANJI, Mohammad Hassan; Teheran, Iran – *The climate of Iran according to Köppen's classification.*

GAUSSEN, Henri Marcel; Toulouse, France – *Classification des climats par les graphiques ombrothermiques.*

LAUER, Wilhelm; Kiel, Germany – *Probleme der klimaklassifikation in den Tropen.*

NAKAHARA, Magokichi; Tokyo, Japan – *On the winds of the five main regions in Japan.*

RODRIGUEZ MARTINEZ, Ignacio; Montevideo, Uruguay – *Le climat de l'Uruguay n'est pas un climat aride ou semi-aride.*

RUELLAN, Francis; Rio de Janeiro, Brazil – *La solifluction tropicale.*

RUELLAN, Francis, Rio de Janeiro, Brazil – *Les causes de la prédominance des plages de sabre sur le littoral oriental de l'Amerique du Sud tropicale.*

SEKIGUCHI, Takeshi; Tokyo, Japan – *Geographical criteria for establishing a network of climatological stations in Japan.*

YAZAWA, Taiji; Tokyo, Japan – *Sequence of weather types in the southwestern islands of Japan.*

YAZAWA, Taiji; Tokyo, Japan – *General trends of precipitation of Japan.*

Section IV – Hydrography

CASTELLANOS, Alfredo; Rosario, Argentina – *Comunication de redes hidrográficas por derrame en ríos de Llanura de Córdoba, Argentina.*

CASTELLANOS, Alfredo; Rosario, Argentina – *Fenómeno de captura en los ríos serranos de Córdoba, Argentina.*

INCARNATO, Arístides Alejandro; Buenos Aires, Argentina – *El río de la Plata; estuario o delta?*

PREVOT, Victor; Paris, France – *La crûe de la Seine en janvier 1955.*

TADA, Fumio; Tokyo, Japan – *Relation between topography and flood flows.*

Section V – Biogeography

AARIO, Leo Eino; Helsinki, Finland – *Pollen as the indicator of the tundra and the timberline.*

BURRILL, Meredith F.; Washington, D. C. – *Terms for Wetlands in the United States.*

COLE, Monica Mary – Keele, Straffordshire, England – *The importance of biogeographical studies in marginal agricultural areas with special reference to the savannas and moorlands.*

DANSEREAU, Pierre; Montreal, Canada – *Les structures de la végétation en Côte d'Ivoire et leurs équivalents brésiliens.*

DANSEREAU, Pierre; Montreal, Canada – *The character of altitude vegetation in Brazil, the Philippines and west tropical Africa.*

GAUSSEN, Henri Marcel; Toulouse, France – *Étagement dans les montagnes tropicales.*

LAUER, Wilhelm; Kiel, Germany – *Die Gliederung und Benennung der tropischen Vegetationsgürtel.*

MOMSEN, Richard P., Jr.; Petropolis, Brazil – *The forest-grassland boundary between Jaraguá, Anápolis and Goiânia on the Planalto Central.*

SEKIGUCHI, Takeshi; Tokyo, Japan – *Results of pollen analysis in Japan.*

Section VI – Human Geography

AHMAD, Kazi S.; Lahore, Pakistan – *Water supply in the Indus plain and allied problems.*

AUBERT DE LA RUE, Edgar; Paris, France – *Les types de clôtures rurales dans le Nord-Est du Brésil.*

BATALLA, Ángel Bassols; Mexico – *L'habitation rurale typique de cinq régions du Mexico.*

BRITO, Raquel Soleiro de; Lisbon, Portugal – *Sur les genres de vie dans le territoire de Goa.*

BURRILL, Meredith F.; Washington, D. C. – *International Standardization of Geographic Names.*

CULBERT, James L; Las Cruces, N. Mex. – *Rural dwellings of the Rio Grande Valley and the Llano Estacado of New Mexico showing the influence of Spanish, Indian and Anglo Cultures upon each other.*

DEFFONTAINES, Pierre; Barcelona, Spain – *La ville religieuse, premier stade de la géographie urbaine.*

DINARES, Pablo Vila; Caracas, Venezuela – *La habitation rural de Venezuela.*

FENELON, Victor; Vanves, France – *L'habitation rurale typique du Périgord.*

FRANCOLINI, Bruno; Firenze, Italy – *Le problème de l'eau dans les régions arides.*

FRANCOLINI, Bruno; Firenze, Italy – *Le facteur religieux dans le paysage géographique (Afrique du Nord, Amérique du Sud).*

GROBER, J.; Jena, Germany – *Triennium Bioclimaticum Tropicale, its aims and organization.*

JOHNSON, Hildegard Binder; Minneapolis, Minn. – *The role of German core settlements in the American Midwest.*

KURIYAN, George; Madras, India – *Problem of food in tropical regions with special reference to India.*

LOBO, Myrtle; Karachi, Pakistan – *Typical rural dwellings of different geographic areas in Pakistan.*

MARTIN, Gene Ellis; Athens, Ga. – *Land division in central Chile.*

MURAMATSU, Shigeti; Osaka, Japan – *Typical rural dwellings of different geographical areas in Japan.*

PINTO, Antonio Fialho; Moura, Portugal – *Observações geográficas dos portugueses do século XVII na África Tropical de Oriente.*

SERTON, P.; Stellenbosh, Union of South Africa – *Comparative water supply in the Karoo and the Kalahari.*

ZABORSKI, Bogdan; Montreal, Canada – *Rural settlements in Canada.*

Section VII – Geography of Population and Settlement

AHMAD, Kazi S. M.; Lahore, Pakistan – *Indo-Pakistan migrations following the partition.*

AHAMAD, Nafis; Dacca, Pakistan – *Rural habitat and house types in East Bengal.*

ALEXANDERSSON, Gunnar; Stockholm, Sweden – *Changes in the industrial structure of cities.*

AMIRAN, David H. K.; Jerusalem, Israel – *The expansion of settled land in Israel.*

APPLEBAUM, William and GREEN, Howard L.; Lexington, Mass. – *Problems in classification of intra-city business areas.*

APPLEBAUM, William; Lexington, Mass. – *Postwar growth of shopping centers in the United States.*

BONASERA, Francesco; Camerino, Italy – *Morfologia urbana costiera dell'Italia Medio-Orientale.*

BROWNING, Clyde Eugene; Seattle, Wash. – *Urbanization and/or population distribution in Mexico.*

CHABOT, Georges; Paris, France – *La géographie de la récréation.*

DICKINSON, Robert E.; Syracuse, N. Y. – *The journey to work, European case studies.*

DONATH, E. J.; Victoria, Australia – *The impact of postwar immigration on Australia.*

DORMANN, Hermann; Dinslaken, Germany – *Cities in the Ruhr district (Dias) – The structure of the Ruhr City (its foundation, growth, and destruction, and its rebuilding according to models in other countries).*

DREWES, Wolfgram U.; New York, N. Y. – *A comparison of pioneer areas of settle- in the montaña region of Peru as related to the extent of road penetration.*

ENEQUIST, Gerd; Uppsala, Sweden – *The concept of urban settlement.*

FENELON, Victor; Vanves, France – Définition du mot "rural".

FERRO, Gaetano; Savona, Italy – *Les villes de l'Algarve.*

FLORISTAN, Alfredo; Granada, Spain – *La emigracion andaluza.*

FRANCOLINI, Bruno; Firenze, Italy – *La colonization européenne des pays tropicaux.*

GEORGE, Pierre O. L.; Paris, France – *Essai de classification des facteurs de différentiation des quartiers urbains dans les divers types de grandes villes.*

GERLACH, Arch. C.; Washington, D. C. – *Comparative Urban Geography.*

HAUGHTON, Joseph P.; Dublin, Ireland – *Contemporary changes in the Irish rural landscape.*

HOUSTON, James M.; Oxford, England – *Population changes in Spain, 1901–1951.*

HUMLUM, Johannes; Aarhus, Denmark – *Rural habitat in the humid tropics of East Bengal.*

KIUCHI, Shinzo; Tokyo, Japan – *Recent increase of agrar cities in Japan.*

MARTINEZ RODRIGUEZ, Ignacio; Montevideo, Uruguay – *Étude géographique comparée de deux villes: Porto Alegre – Montevideo.*

MIGLIORINI, Elio; Napoli, Italy – *I limiti della grande Napoli.*

NASH, Peter Hugh; Medford, Mass. – *Concepts of urban geography and city planning as expressed and implied in the urban renewal legislation of 1954 of the Federal Government of the United States.*

RYUJIRO, Ishida; Tokyo, Japan – *Geographical effects of Japanese industrialization.*

ROCHEFORT, Michel; Strasbourg, France – *Réseau urbain et types de ville en Alsace.*

ROY, Jean Marie; Quebec, Canada – *Le mouvement d'urbanisation dans le Quebec.*

SERONDE, A. M.; Paris, France – *Le developpement industriel de l'agglomération romaine.*

SMEDS, Helmer; Helsingfors, Finland – *The population capacity of the Ethiopian highland.*

STERLING, Henry Somers and LIZARRALDE, Roberto; Madison, Wis. – *Downward migration from the Venezuelan Andes to the Llanos and Maracaibo piedmonts.*

TJALKENS, T.; Holland – *Regional decentralization of industries as a restrictive factor in the growth of the large cities in Holland.*

VALDERRAMA, Pedro Alejandro Medina; Lima, Peru – *Colonisacion de la selva peruana.*

WADA, Shunji; Shiga, Japan – *Problems of acclimatization.*

Section VIII – Medical Geography

HORIGUCHI, Tomoichi; Nisihara, Japan – *A medical geographical study of distosomiasis Japonica in Japan.*

MOMIYAMA, Masako; Tokyo, Japan – *The methodology of medical geography.*

MOMIYAMA, Masako; Tokyo, Japan – *Studies on the medical geography of tuberculosis in Japan.*

WYNDHAM, Ciryl Henry; Johannesburg, Union of South Africa – *The relative degree of adaptation to heat of Africans and Europeans.*

Section IX – Agricultural Geography

AHAMAD, Nafis; Dacca, Pakistan – *Land use types in East Bengal.*

ALAM, Shah Manzoor; Secunderabad, India – *Land use and settlement pattern along the river Godavery in Hyderabad State.*

BOESCH, Hans; Zurich, Switzerland – *Das Verschwinden der Dreizelgenwirtschaft in der Nordostsschweiz.*

BRITO, Raquel Soleiro de; Lisbon, Portugal – *Elevage et agriculture dans les îles des Açores.*

DEFFONTAINES, Pierre; Barcelona, Spain – *La conquète de l'Amerique Latine par le bétail.*

DESPLANQUES, Henri; Lille, France – *Les arbres dans le paysage rural d'Ombrie et de Toscane Italie.*

DONATH, E. J.; Victoria, Australia – *Recent changes in the Australian wheat industry.*

FERRO, Gaetano; Savona, Italy – *L'utilisation du sol dans l'Algarve.*

FLORISTAN, Alfredo; Granada, Spain – *Evolution de los cultivos en la Vega de Granada.*

MORI, Alberto; Pisa, Italy – *Consequenze geografiche della riforma agraria in Italia.*

OLOF, Jonasson; Mass. – *The potential areas of growing coffee in the world, and the importance of these areas in understanding the settlement of the white man in the tropics.*

PELISSIER, Paul; Dakar, French West Africa – *Types d'utilisation du sol en Afrique Occidentale.*

POUQUET, Jean; Dijon, France – *Érosion des sols et restauration d'après les premiers resultats de la mission POUQUET en Guinée Française, Afrique Occidentale Française.*

RIBEIRO, Orlando; Lisbon, Portugal – *Utilisation du sol, systèmes agraires et habitat: quelques remarques comparatives.*

SCOTTI, Pietro; Genova, Italy – *La reforme agraire dans la Marimma Toscanna.*

STERLING, Henry Somers; Madison, Wis. – *Geographic consequences of agrarian reform in central Vera Cruz, Mexico.*
VALENTI, Juan Vilá; Barcelona, Spain – *El concepto de "sistema de cultivo."*
VALDERRAMA, Pedro Alejandro Medina; Lima, Peru – *Instrucciones Agropecuárias para la selva.*
WHEATLEY, Paul; Singapore, Malaya – *Agricultural experiments in the Straits Settlements, 1786–1865.*

Section X – Geography of Industry, Commerce, and Transport

AHAMAD, Nafis; Dacca, Pakistan – *Some demographical problems in the industrialization of East Bengal.*
AUGELLI, John P.; College Park, Md. – *Industrial genesis in an underdeveloped area: Puerto Rico, USA.*
BALCHIN, William George Victor; Swansea, United Kingdom – *The second industrial revolution in Wales.*
BEAVER, Stanley; Keele, Staffordshire, England – *Land reclamation after surface mineral working in Great Britain.*
BROUILLETTE, Benoît; Montreal, Canada – *Les conséquences de la canalisation du Saint-Laurent sur les exportations canadiennes de céréales.*
COLE, Monica Mary; Keele, Staffordshire, England – *The emergence of South Africa as an industrial nation. The geographical basis and the economic and human problems.*
DAGENAIS, Pierre; Montreal, Canada – *Conséquences géographiques des récents développements de l'industrie minière dans le grand nord de Québec, au Canada.*
DAMBAUGH, Luella; Miami, Fla. – *Puerto Rico's industrial progress.*
EDWARDS, Kenneth Charles; Nottingham, England – *The significance of East Midland coal production in relation to Britain's fuel and power problem.*
FOSCUE, Edwin J.; Dallas, Tex. – *The forest region of east Texas.*
GANANATHAN, Viakalathur S.; Poona, India – *The development of ports in relation to the network of transportation in Western India.*
GARRY, Robert Francais Joseph; Montreal, Canada – *Le transport aérien au Canada.*
HANRATH, Dr. Joh. J.; Voorburg, Holland – *The development of ports in relation to the network of transportation.*
HANRATH, Dr. Joh. J.; Voorburg, Holland – *Industrialization and agricultural development.*
HANRATH, Dr. Joh. J.; Voorburg, Holland – *Competition and coordination of different means of transportation in tropical countries.*
HILLS, Theodore Lewis; Montreal, Canada – *The Saint-Laurence Seaway and future industrial development in the St. Lawrence Valley.*
LANNOU, Maurice Le; Lyon, France – *Industrialisation et progrès agricole dans la France de l'Ouest.*
LAPEYRE, André; Paris, France – *Implantation industrielle en région tropicale. Localisation des Centres.*
LOBO, Myrtle; Karachi, Pakistan – *Industrialization and agricultural development - their mutual relationship.*
MELAMID, Alexander; New York, N. Y. – *Industrial location and economic development in the subtropics and tropics.*
MONBEIG, Pierre; Paris, France – *Nouvelles observations sur les investissements en Amérique Latine.*
MONBEIG, Pierre; Paris, France – *Agriculture et industrialisation en Amérique Latine.*

ROBERTSON, Charles John; Edinburgh, Scotland – *Trade patterns of tropical areas since World War II.*

SPATE, Oskar Hermann Khristian; Canberra, Australia – *Industrialization in India.*

VINUEZA, Carlos H.; Quito, Ecuador – *Industrialización y progreso agricola: sus relaciones recíprocas.*

YAMAGUCHI, Sadao; Tokyo, Japan – *The development of heavy industry in Japan.*

Section XI – Historical and Political Geography

ALAM, Shah Manzoor; Secunderabad, India – *Political Geography as against Geopolitics.*

BENITEZ, José R.; Guadalajara, Mexico – *La distribución territorial según la alimontación regional.*

BLUME, Helmut; Kiel, Germany – *Die agrargeographische Entwicklung Louisianas in kolonialer Zeit.*

CAMPBELL, Eila M.; London, England – *The use of travel descriptions in the reconstruction of the past scene, with special reference to Bolivia.*

CRAIN, Clark N.; Denver, Colo. – *Geographic factors in the development of an oasis area in Colorado and the political units that resulted therefrom.*

FENELON, Victor; Vanves, France – *Formation des départments français.*

HSIEH, Chiao-min; Cambridge, Mass. – *The capitals of China – A study in political geography.*

HUNG-FU; Oxford, Ohio – *Geographic problems in the redivision of Chinese provinces.*

ILESIC, Svetozar; Ljubljana, Yugoslavia – *Geographical problems in the administrative redivision of Yugoslavia.*

IWATA, Kozo; Urawa, Japan – *Boundary problems of feudal clans in Japan.*

NICHOLSON, Norman L.; Ontario, Canada – *The evolution of the political map of Canada.*

NOMURA, Noboru; Osaka, Japan – *The problem of a specially devised irrigation in the valley of the river Ishikawa in the south-eastern part of Osaka.*

OGURI, Hiroshi; Tokyo, Japan – *Community ties of Japanese villages.*

SPATE, Oskar Hermann Khristian; Canberra, Australia – *New Delhi and Canberra.*

WHEATLEY, Paul; Singapore, Malaya – *The Malay Peninsula as known to the Chinese before A.D. 1500.*

YONEKURA, Jiro; Hiroshima, Japan – *Historical development of political administrative divisions of the Far Eastern countries, especially of Japan.*

Section XII – Methodology, Teaching of Geography, and Bibliography

ALAM, Shah Manzoor; Secunderabad, India – *Critical study of the concept of geography.*

BAILEY, Patrick John Mumford; Wyomondham, Norfolk, England – *The present place of field studies in the curriculum of British secondary schools.*

BATALLA, Ángel Bassols; Mexico, D. F. – *Apportations à la classification bibliographique géographique du Mexico.*

BOESCH, Hans; Zurich, Switzerland – *Erfahrungen mit morphologischen Experimenten un Hochschulunterricht.*

BOESCH, Hans; Zurich, Switzerland – *Einige Bemerkungen zum Landschaftsbegriff.*

CLOZIER, René; Paris, France – *L'étude du milieu dans l'enseignement secondaire français.*

DORMANN, Hermann; Dislaken, Germany – *The geographical school film. Suggestions for reformation and adaptation to the requirements of modern teaching, possibilities of an international organization for the production of school films.*

DORMANN, Hermann; Dislaken, Germany – *Suggestions for a permanent international exchange of researchers and teachers.*

FENELON, Victor; Vanves, France – *Formation du chercheurs et celle du professeur de Géographie.*

HIDALGO, Hugo Ocharan; Arequipa, Peru – *Inclusion de Climatologia, Meteorologia i Astronomia en los programas de Geografía para secundaria.*

ILESIC, Svetozar; Ljubljana, Yugoslavia – *Geography and planning in Yugoslavia.*

JOURNAUX, André; Caen, France – *La recherche géographique en France.*

LEHOVEC, Otto; Weissenburg, Germany – *Ein Landschaftsmodell.*

MILOJEVIC, Borijove Z.; Belgrade, Yugoslavia – *The teaching of regional geography at the Universities.*

ROBERTSON, Charles John; Edinburgh, Scotland – *Borderlands of research in economic geography and economics.*

RUELLAN, Francis; Rio de Janeiro, Brazil – *La géomorphologie appliquée et la formation du géomophologue professionnel.*

SCARFE, Neville Vincent; Winnipeg, Canada – *A report on the work of the Commission on the Teaching of Geography.*

Section XIII – Regional Geography

CHARTON, Albert; Neuilly, France – *Enseignement de la géographie.*

CHARTON, Albert; Neuilly, France – *La géographie et l'éducation de base dans les pays sous developpés.*

DONATH, E. J.; Victoria, Australia – *The Murray Valley.*

MILOJEVIC, Borijove Z.; Belgrade, Yugoslavia – *Les régions subtropicales de la Yugoslavia.*

ROBINSON, J. Lewis; Vancouver, Canada – *Geographic regions of Canada.*

SEARCH FOR LAMPREY POISON NEARS CLOSE

Secretary of the Interior Douglas McKay has announced that although additional testing must be made, the Fish and Wildlife Service search for a poison which can kill larvae of sea lampreys without injuring desirable species of fish is drawing toward a successful conclusion.

The poison, specific to lampreys and harmless to other fish, will be used in connection with electrical devices which have already been proved and have been installed at various points in the Great Lakes, in a double-barreled attack on the sea raider which has moved into the Great Lakes with such disastrous results to commercial fishing.

About 5,000 poisons have been tested in the search for one which is specific for lampreys. Several poisons have been found which give excellent results in many tests in which lamprey larvae and fish have been treated under identical laboratory conditions. These selective poisons are undergoing extensive testing before field trials to make doubly sure that they will not be harmful to desirable fish, to game, or to man in concentrations at which they will kill lamprey larvae.

The electrical devices block the lamprey from ascending to spawning grounds in the tributaries of the lakes. The poison, if it lives up to expectations, will kill the five generations of lamprey larvae which live in the mud bottoms of the streams. Adult lampreys, attempting to reach spawning grounds will be killed

by the electrical devices. All United States streams tributary to Lake Superior known to have lamprey spawning areas have been blocked by the electrical devices. Canada is well along on its part of the program and will have the task completed in 1957. At present there are 72 electrical barriers operating on Lake Superior.

Lake Michigan fishing has already been disastrously hit by the sea lamprey. Recent test gill netting indicated that lake trout have practically been eliminated in that body of water since the influx of sea lamprey a few years ago. During the search for a lamprey poison the Fish and Wildlife Service uncovered many promising leads for the development of other selective fish poisons which can be used in fish management. It is expected that additional work along this line will open up some entirely new approaches to fish population control.

NCGT AWARDS AND NEW OFFICERS

The National Council of Geography Teachers, at its meeting in Indianapolis on November 25, awarded its Distinguished Service Award to J. Russell Whitaker, the J. Paul Goode Prize to Earl Shaw, the George J. Miller Prize to Dean M. Scarfe, and the Elementary Education Prize to Thomas L. Barton. The officers elected for the coming year are: Norman Carls, President; Ina C. Robertson, First Vice President; John W. Morris, Secretary; and, John Garland, Treasurer.

RESOURCES FOR THE FUTURE 1955 REPORT

A release on its 1955 annual report by Resources for the Future, Inc., notes staff research under five general headings: water resources, under Edward A. Ackerman; energy and mineral resources, Sam H. Schurr; land use and management, Marion Clawson; regional studies, Harvy Perloff; resources and the national economy, Harold J. Barnett. Joseph L. Fisher is in general charge of staff research.

Grants made in 1955 include: University of Kansas, $42,000 for a one year study of principles governing water-land resource use in the Kansas Basin; Institute of Forest Genetics of the California Forest and Range Experiment Station, U. S. Forest Service, $35,700 for a five-year study of the basic processes of flowering and seed production in pine trees; University of Nebraska, $113,500 for a three-year study of land use problems in the transition area between the Corn Belt and the Great Plains; National Research Council, $10,000 for an exploratory study of needs for and feasibility of a conservation board within the NRC framework to investigate and coordinate work on basic scientific data and problems concerned with the production, utilization, and conservation of natural resources; Massachusetts Institute of Technology, $93,750 for a five-year program of basic research into principles and techniques of analysis adapted to solution of problems of natural resource and regional economic development; Inter-University Case Program, $15,000 for a small number of case studies concerning administrative decisions and procedures affecting the development, conservation, and use of natural resources; Yale University, $7,167 for an exploratory survey of technical and economic possibilities of converting municipal wastes into fertilizers or soil conditioners; Joint Council on Economic Education, $100,000 for a three-year program to encourage, in cooperation with local groups, an expansion of conservation and resource-use education in the public schools; Harvard University, $120,000 to complete over a three-year period the program of its seminar in land use and conservation; Michigan Natural Resources Conference, $2,000 in partial support of a state-wide meeting held last January as a follow-up to the National Mid-Century Conference on Resources for the Future.

The report also notes progress in two other research programs supported by grants made during the 1954 fiscal year: a study by the National Planning Association of the economic significance of nuclear energy in industrial and agricultural development, and a University of Chicago study into some phases of federal ownership and development of natural resources.

FORD FOUNDATION GRANT TO AMERICAN GEOGRAPHICAL SOCIETY

The Ford Foundation has granted $140,000 to the American Geographical Society. Distributed over a five-year period, it will give initial support to a plan mapped out by the Society to strengthen its research program and to extend its service to the public at large. Dr. Charles B. Hitchcock, Director of the Society, has announced that the grant will permit engaging several young scientists to absorb and carry on the specialized knowledge of the senior staff members while carrying on their own individual research. The plan is aimed both at satisfying the Society's personnel requirements and at providing opportunity for exceptionally gifted new Ph.Ds in geography to mature their research abilities before entering careers in teaching, government, or industry.

UNESCO DEPOSITORY LIBRARIES

Thirteen U. S. libraries, acting as depositories, have copies of all UNESCO documents and publications issued up to January 1954, and subsequently those they have requested. Most receive all periodicals and publications. The university libraries are those at Hawaii, California, Chicago, Texas, Louisiana, North Carolina, and Harvard; the public libraries are those at St. Louis, Cleveland, and New York. The list also includes the Library of Congress, the Woodrow Wilson Memorial Library in New York, and the Columbus Memorial Library in Washington, D. C.

THE NATURE OF GEOGRAPHY

Richard Hartshorne

Copies of the 4th edition may be obtained from the Central Office of the AAG, The Library of Congress, Washington 25, D.C. The price is $2.00 plus 20¢ for handling in the United States, and 25¢ for handling in other countries.

In order to aid students, as in the past, this volume is published by the Association and sold at cost, with no royalties to the author.

NEWS FROM GEOGRAPHIC CENTERS

NORTHWESTERN UNIVERSITY

The Geography Department has thirty graduate students registered and nearly a dozen additional students who are out working on their dissertations. Fourteen of the students in residence have full or half graduate teaching assistantships, five hold university or other fellowships, three hold scholarships, and one is serving as Map Curator. Registered in the fall quarter in the Department there are a total of 868.

In April 1955, Dr. Clarence F. Jones completed his second year as President of the Geographical Society of Chicago. During his two years as President the membership of the Society increased from 1,900 to 3,500; the board of directors of the Society voted to resume the publication of its Geographical Bulletin; and the board of directors established a Geographical Society Scholarship on a competitive essay basis for the high school graduate of the Metropolitan Chicago area to be used by the student for attending a college or university in the Metropolitan area.

During the summer of 1955 Dr. Jones served for two and one-half months as consultant to the Government of Puerto Rico on agricultural development of regions and subregions as a part of the *Master Plan for the Agricultural Development of Puerto Rico.* As a delegate of the Department of State he attended the Fourth Consultation on Geography of the Pan American Institute of Geography and History in Mexico City, July 25 to August 6. At the plenary closing session he was presented the gold medal for the award granted to him at the Third Consultation at Washington, 1952, for the most outstanding contribution to geography in the Americas during 1950–52.

During 1954–55 Dr. Jones published (1) Revised Edition of *Economic Geography,* Jones and Darkenwald, Macmillan Co. 1954, 612 pages; (2) James and Jones (editors) *American Geography: Inventory and Prospects,* Syracuse University Press, 590 pages; (3) Jones and Pico (editors) *Symposium on the Geography of Puerto Rico,* University of Puerto Rico Press, 1955, 503 pages.

In May 1955, Professors William E. Powers and Clyde F. Kohn submitted their final report on their Office of Naval Research Project No. NR 387–005, contract N–7–ONR–45–005, entitled, "The Geographic Method of Aerial Photographic Interpretation."

In August 1955, Professor Powers was a lecturer and commentator on Arctic films in two programs presented before the Library of International Relations, Chicago. The program on August 10th dealt with Baffin Island and the Eskimos of the eastern Canadian Arctic. The program on August 17th dealt with Eskimos and resources of Alaska and with the Matanuska Valley project.

Dr. Kohn is currently preparing a monograph on "Geographic Interpretation of Aerial Photographs" to be published as the second volume of the Northwestern Studies in Geography Series. At the present time he is Acting Director for 1955–56 meetings of the Northwestern University Center for Metropolitan Studies during the absence of Dr. Proudfoot, and is continuing his studies of the character of suburban developments in Metropolitan Chicago. On October 1, 1955, Dr. Kohn spoke on "Better Teaching of Local Geography" before the Illinois Geographical Society at Macomb, Illinois.

Drs. Jones, Espenshade, Kohn, and Petterson journeyed to Madison, Wisconsin in October to attend the meeting of the West Lakes Branch of the Association of American Geographers.

UNIVERSITY OF BRITISH COLUMBIA

Undergraduate enrollments increased this year to a total of 770 in 12 full-year courses. There was a notable increase in upper year enrollments and in the number of geography majors. The graduate group of 8, the largest since the post-war "wave," includes students from Oxford University and the University of Manitoba. Last summer, U.B.C. with 230 teachers taking 4 geography courses, had the largest group of geography teachers in Canada. Last summer 6 U.B.C. students were employed by the federal Geographical Branch in Ottawa or in field work in Canada. Geography graduate students are employed by planning agencies in B.C. and Alberta, and by provincial resources departments in B.C. and Saskatchewan.

Dr. J. Ross Mackay continued his field work in the Canadian Western Arctic on photointerpretation keys and physiography, for the federal Geographical Branch in Ottawa. He was assisted by graduate student Jack K. Stathers. The field party sailed in a small boat from Aklavik in the Mackenzie River delta, N.W.T. eastward for 300 miles to Liverpool Bay on the Arctic coast. They ascended the Anderson River by canoe for some 150 miles into little-known country.

Prof. John D. Chapman is General Editor of, and has prepared the climate maps for, a new "Atlas of B.C. Resources" to be published by the British Columbia Natural Resources Conference. The Atlas will have 92 maps and make full use of color. Its over-all dimensions are 17 x 21 inches. It has 3 sections: Part I, Physical and Human Geography, 21 pages; Part II, Resource Use, 21 pages; and Part III, Map Indices, 4 pages. Each map is accompanied by an illustrated text on the opposing page. Prof. Richard Ruggles of the Geography staff is one of the cartographers for the Atlas and has given invaluable help in map design. The other cartographer, Albert L. Farley, is geographer for the Department of Lands, Victoria. The individual maps have been compiled by specialists mainly from the university and from government services.

This fall Prof. Ruggles is in charge of a student survey of "Vacant Residential Land in the Greater Vancouver area in relation to Services," for the Community Planning Association of Canada, of which he is an Executive member. Field mapping is being done by U.B.C. graduate students.

Dr. J. Lewis Robinson, Chairman of the Geography Department, spent the past summer travelling some 12,000 miles to eastern Canada and United States, filling in his Kodachrome collection for teaching purposes. This collection now totals more than 1,000 pictures from all parts of settled southern Canada and much of the Northwest Territories. Dr. Robinson was in eastern Canada last summer to attend the meeting of the Canadian Association of Geographers, of which he is President this year.

UNIVERSITY OF KANSAS

The University of Kansas has received a research grant from Resources for the Future, Inc. to begin a three-year study of the Kansas River basin. The project will be devoted to studies of the problems and principles of resource utilization, with particular attention to water and land use and manipulation. Although the project is inter-disciplinary in nature, it is administered by the Geography Department and Dr. Charles C. Colby, formerly chairman of the Department of Geography in the University of Chicago, serves as research director. For the present his full-time and part-time assistants are Dr. George Jenks, Dr. Robert Sinclair, and H. Lloyd Dillingham.

SYRACUSE UNIVERSITY

The Department of Geography at Syracuse University is directing three research projects, supported by the New York State Department of Commerce, relating to problems associated with the St. Lawrence Seaway project. Prof. John H. Thompson is directing a study of existing factories in northern counties of New York and regional advantages and disadvantages of this area. Prof. Robert E. Dickinson is directing projects concerned with the relationship of land use and terrain type patterns, the analysis of settlement patterns, and the function and distribution of population groups. Geography graduate students James M. Jennings, Henry H. Hymes, and Franklin R. Stem are doing the field work for these projects, and will base dissertations on it.

Prof. Hibberd V. B. Kline, Jr., who returned this semester from a year in British West Africa, will conduct the annual summer field course held at Geneseo, N. Y., assisted by Prof. Raymond L. Murphy of Clark University.

Prof. Gene Martin, University of Georgia (Ph.D., Syracuse 1955), will teach in the regular session this summer, as will Prof. Erich H. Bordne of Yale University, another Syracuse graduate, and Professors Eric Faigle, Eleanor Hanlon, and John Thompson.

PERSONAL NEWS

ROBERT C. LEDERMAN has taken a position with Larry Smith & Co., real estate consultants. He was formerly a research supervisor in the Air Research Division of the Library of Congress.

DAN STANISLAWSKI, University of Texas, spent several months in Italy, Germany, Spain, and Portugal during the past year.

NORTON S. GINSBURG, University of Chicago, is at the University of Washington for the winter quarter, lecturing on the Far East and participating in a seminar in geographic methodology as related to the social sciences.

ROBERT L. PENDLETON, Professor Emeritus at Johns Hopkins, leaves with his wife for Thailand in February. They will live at Kasetsart University, the agricultural college at Bangkhen near Bangkok. He will work on revision of the reconnaissance soil maps of that country.

EDWARD ACKERMAN, Resources for the Future, Inc., visited Great Britain, the Netherlands and France in September and October. While in Great Britain he attended the First International Regional Planning Conference, addressing the conference on the subject of TVA's planning. In Great Britain, Netherlands, and France he consulted with officials of the respective governments concerning planning and financing procedures for water and hydro-electric development projects. In October and November he also visited Japan at the invitation of the Japanese Institute of Public Health and the Resources Council of the Japanese Government. Most of his visit was spent in Tokyo and vicinity.

GILBERT F. WHITE, University of Chicago, is one of 16 new members of the U. S. National Commission for UNESCO whose appointment by the Secretary of State was announced in the Commission's December 9 newsletter.

JAN O. N. BROEK has returned to the University of Minnesota after a year as visiting professor at the University of Malaya, Singapore. While there he gave some lectures at the University of Rangoon, visited all the coastal areas of Borneo to study the trade centers, and traveled widely in that part of the world. En route home, he visited Beirut, Istanbul, Germany, Norway, Netherlands, and England.

DAVID BLUMENSTOCK has been appointed regional climatologist for the Weather Bureau's Pacific region, and is now stationed in Hawaii.

MALCOLM J. PROUDFOOT, Department of Geography, Northwestern University, died suddenly of a heart attack on November 21 in Oxford, England, at the age of 48. He was on a year's leave of absence on a Guggenheim Fellowship for research on "Wartime and Post-War Migration into the United Kingdom." At the time of his death he was reading page proof on his book, *European Refugees, 1939–1952.*

After undergraduate and graduate training at the University of Chicago and the University of Berlin, his experience in government geographic work included direction of land classification field parties for the Tennessee Valley Authority, five years as Assistant Geographer in the Bureau of the Census and one year as Assistant Director of the Bureau. In 1948 the Geographic Society of Chicago awarded him a cash prize of $100 for his book, *The Measurement of Geographic Areas,* written while with the Census. During World War II he served at the rank of Captain and Lieutenant Colonel in military government in SHAEF. He was decorated twice by the U. S. Army, once by each of the four allied governments, and recently by Greece.

He taught geography at George Washington and American Universities in Washington, D. C., and at Northwestern University since 1947. He was an inspiring director of graduate student research and a stimulating teacher. As Chairman of the Northwestern University Committee of the Metropolitan Center, he developed and directed the work of the Center.

Dr. Proudfoot has a long list of articles, books and critical reviews to his credit. He was a member of the Association of American Geographers, American Geographical Society, the Geographic Society of Chicago, the Royal Geographical Society and others. He has represented American geographical societies and universities at many national and international geographical conferences in Europe.

R. D. CALKINS died of cerebral thrombosis on September 27 at the age of 82, at Lansing, Michigan. He organized the Geography Department at Central Michigan College in 1904 and headed it until his retirement in 1944. Many professional geographers, teachers, and business men received their first real inspiration and intellectual awakening in his classes. He and his work live on through them.

NEW PUBLICATIONS

Philadelphia Waterfront Industry: Industrial Land and its Potentials on the Delaware River. W. A. Douglas Jackson. Department of Commerce, Philadelphia. 1955. ix and 106 pages plus bibliography and 12 maps.

This study is concerned with the problem of industrial location and the availability of sites on the Delaware River, particularly in Philadelphia. It presents a concise geographical survey of the Delaware River (22 pp), a review and classification of waterfront industries (24 pp), an analysis of industrial potentialities and some recommendations for their development. A limited number of copies are available for distribution upon request to the Department of Commerce, Philadelphia, Pa.

Report on Exhibits at the VI Assembly, Pan American Institute of Geography and History. Mexico City. 1955. Arch C. Gerlach. Mimeographed. 14 pp.

This list of maps and publications on exhibit was compiled for use as an acquisitions tool to fill gaps in collections at the Library of Congress. Consequently it does not include the U. S. exhibit, and is admittedly imperfect from a bibliographic point of view. A limited number of copies are available, however, upon request to the author, Chief, Map Division, Library of Congress, Washington 25, D. C.

Water. The Yearbook of Agriculture, 1955. Department of Agriculture. xiii and 751 pp. For sale by Superintendent of Documents, Washington 25, D. C. $2.00.

This yearbook is another indication of the growing awareness that in this country the pressure of population upon the water supply is already serious and will get worse. Secretary Benson, in the Foreword, calls attention to a variety of consequences of deficiency, and to recent and needed steps. He comments that irrigation is destined to be adopted in all parts of the nation, and that "We need an increased awareness among all Americans of the oneness of our physical resources."

The volume includes about 100 articles on a wide variety of topics, grouped broadly under need, sources, water and soil, watershed management, forests, irrigation, crops, animals, gardens turf and orchards, drainage, wildlife, farm and urban supplies, and the future.

An eleven man Yearbook Committee, which included geographers Carleton P. Barnes and Charles E. Kellogg, planned the scope of the book and set forth this aim at the start for the guidance of the men who wrote the chapters:

> "Our primary aim is to explain the nature, behavior, and conservation of water in agriculture. We address ourselves to farm people and to all those interested in rural living. As our population increases, more demands are being made on our water resources; the effective use and conservation of water on farms will become increasingly important, and conflicts over water use will have to be resolved. Some of the broad problems are forecast, but our main emphasis is on the facts and basic principles that will help people in reaching the best decisions. Hydroelectric power, navigation, industrial use, pollution, and other aspects are touched on, but this book is concerned almost entirely with water in agriculture."

The book successfully carries out that aim, and more with so many informative, stimulating articles that to cite one is to omit many equally good, but the unusually effective eight-page picture essay between pages 48 and 49 deserves special mention as a communication technique readily usable by geographers.

Teaching Salaries Then and Now. Beardsley Ruml and Sidney G. Pickron. Bulletin No. 1. Fund for the Advancement of Education. 655 Madison Ave., New York 21, New York. 1955. 93 pp. Free.

Teachers for Tomorrow. Bulletin No. 2. 1955. 72 pp. Free.

Bulletin No. 1 reports and interprets the results of an examination of the economic position of teachers in all the major classifications over the period 1904–1953. That position has worsened to an extent greater than may be generally appreciated, the deterioration being greatest at the top. The volume is divided into Foreword, Inferences and Impressions, Technical Report, Statistical Tables and Statistical Notes. The data upon which the generalizations are based are meticulously identified and supplied in summary tables with explanations of the reasons for selection of the figures used.

Bulletin No. 2 presents in graph, text capsule and table form, a straight from the shoulder statement and analysis of the educational dilemmas resulting from recent explosive population increases and some of their implications that reach to the very roots of our society and economy. The present educational structure simply will not do the job. The authors of the Bulletin do not profess to know what will replace it, but they suggest some things to do and point to some recent experiments. This is a pamphlet for everyone who can read. It presents a challenge to every citizen and an extra one to members of the professions, including us.

Bibliography on Southwestern Asia: II. Henry Field. University of Miami Press. Coral Gables, Fla. 1955. 126 pp.

The 3,292 references in this second bibliography are divided about equally between "anthropogeography" and natural history. The first category is made up of anthropology (physical, ethnology, sociology, population problems, migration and settlement, and linguistics), geology and paleontology, agriculture (irrigation, hydro-electric development, soil conservation and land reclamation), astronomy, cartography, meteorology, medicine (public health, disease, nutrition and dentistry), art, drama, literature, music and poetry.

Listing is alphabetical by author within each of the two major categories. There is an author index but none by subject or area. References of collateral interest to geographers interested in that area may be found in this publication either by reading it through from cover to cover or by looking up references to likely authors.

Research on the Middle East, 1955. Middle East Institute. Washington 6, D. C. 1956. About 250 pp. $2.50.

Findings of a recent survey are reported in 1,018 entries on current projects in geography, history and archeology, political science, economics, social relations, law, philosophy and religion, literature, art, history of science, and linguistics. The survey covers North Africa, Egypt and the Sudan, Ethiopia-Eritrea, Arabian Peninsula, Fertile Crescent, Turkey, Iran and Afghanistan.

BOOK TWO